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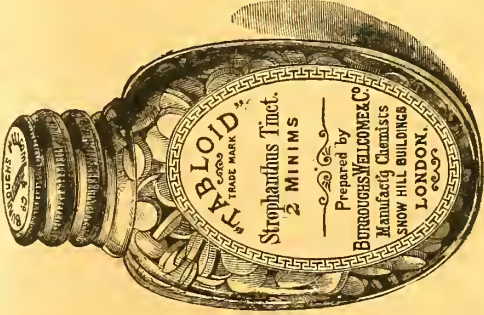
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Editorial Notes:—"Cutting Prices," "Pharmaceutical Society of N.S.W.," "Public Discussions are Unprofessional," "The Tasmanian Certificate," "Dispensing Queries," &c.

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New Zealand.—Midland Pharmaceutical Association (Official Report and Report from our Special Correspondent).

Queensland.—Annual Report of Pharmaceutical Society,
South Australia.—Monthly Council Meeting of Pharmaceutical Society and Letter from our own Correspondent.

Victoria.—Pharmacy Board of Victoria and Pharmaceutical Society—Reports of Meetings.

Centennial International Exhibition, Melbourne—First Report of Pharmaceutical Exhibits.

Letters from our Correspondents at Sydney, Hobart, and Launceston.

Students' Corner and Correspondence re Dispensing Queries, &c.

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Aided by Mr. G. Clayton, Pharm. Chem.

Fourteen Students from M. C. P. entered for the October Minor Examinations. Eleven passed, four at their first attempt, five at their second, viz:—

Mr. T. W. Knighton.
 „ J. W. Drinkwater.
 „ W. Carey Taylor.
 „ C. Bransby.
 „ J. A. Gilbert.

Mr. W. H. Galloway.
 „ F. S. Marsden.
 „ J. E. Taylor.
 „ J. S. Hepworth.
 „ C. Beaumont Wood.

Mr. A. Bushby.

Last October Twelve "Manchester men" passed, and over Forty have passed during the year.

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 (Formerly a pupil of Dr. Thresh.)

PASS LIST FOR OCTOBER.

MINOR.

Mr. J. R. BLABEY, Woolton.	Mr. G. H. NICOL, Dumfries.
„ F. W. JACKSON, Blackpool.	„ C. F. PARKER, Liverpool.
„ J. M. JONES, Conway.	„ E. H. ROGERS, London.
„ C. G. MCGIBBON, Liverpool.	„ W. A. ROBERTS, Bangor.

In July Seven passed the Minor from the Liverpool School, making a total of Fifteen for the Two Examinations.

The Classes for the December and January Examinations are at work, and those desiring to join must do so at once.

The next full Course of Lectures will commence on Tuesday, January 1st, 1889, and those intending to join this course are requested to send in their names as early as possible, so as to secure benches, as it is fully expected that, notwithstanding the increased accommodation, the classes will be quite full.

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During the past Session 14 Students passed the Preliminary, 140 the Minor, and 12 the Major Examinations of the Pharmaceutical Society.

At the last Pharmaceutical Examinations 8 Major Candidates from this School presented themselves, 6 passed. The following 35 Minor Students were also successful.

MAJOR.

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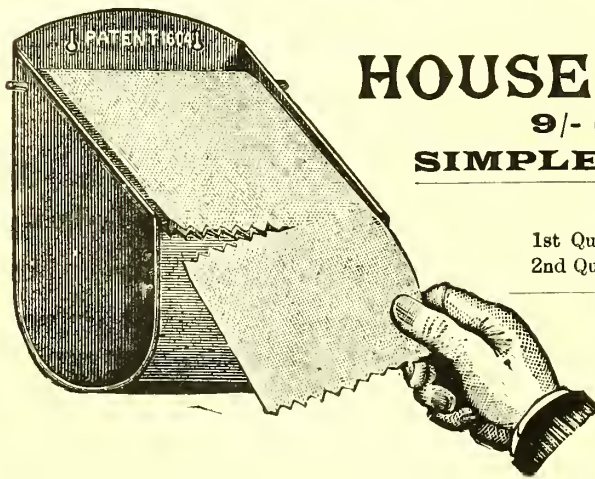
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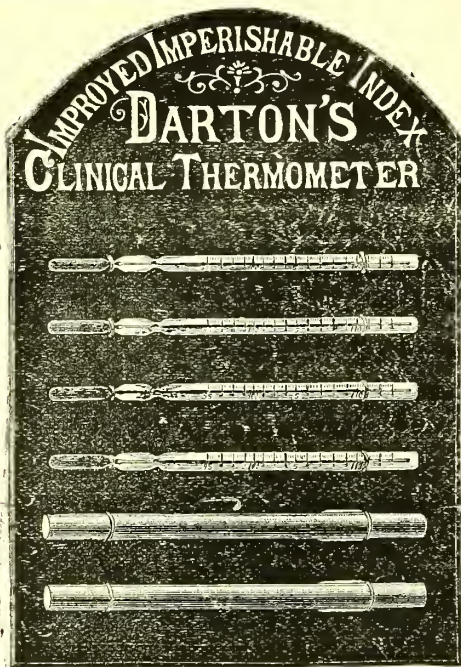
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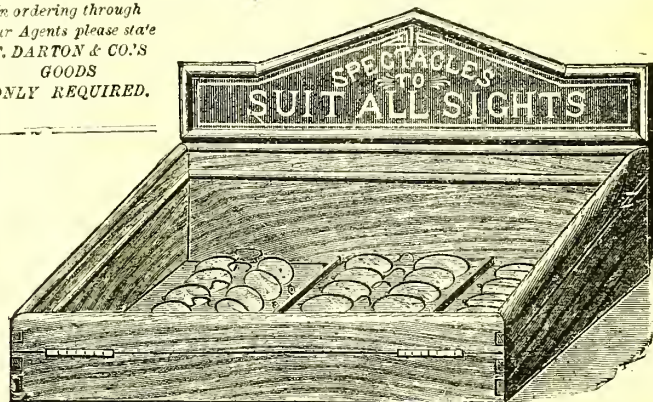
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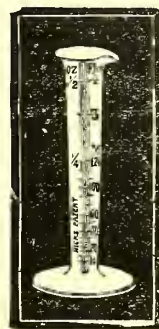
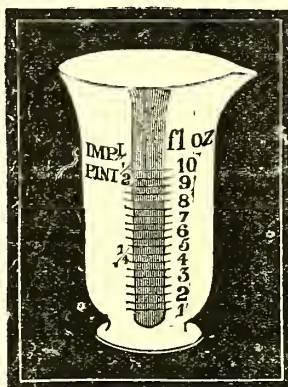
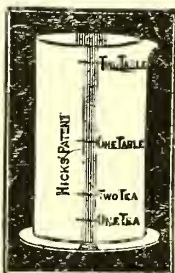
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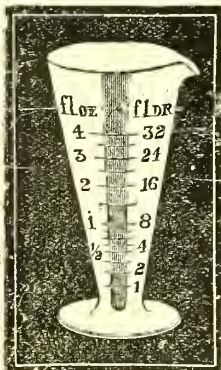
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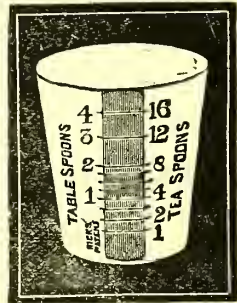
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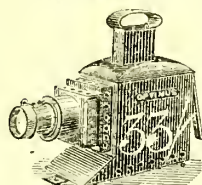
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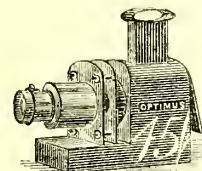
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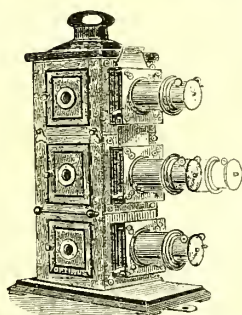
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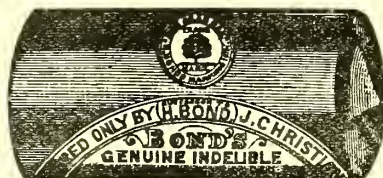
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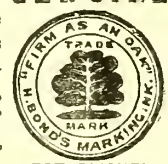
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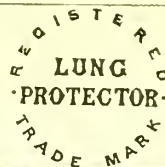
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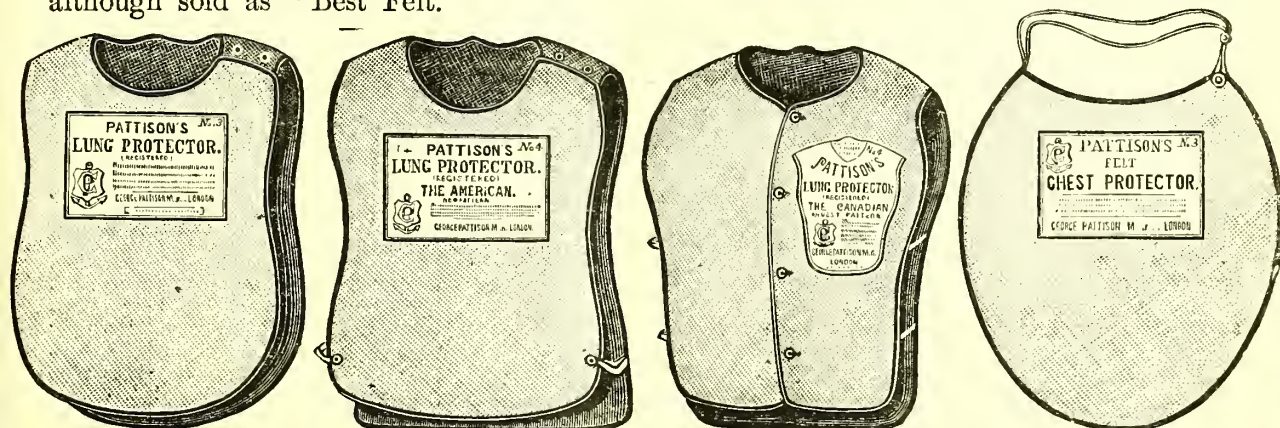
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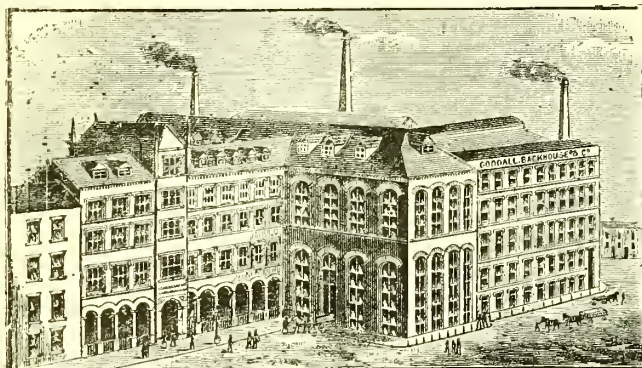
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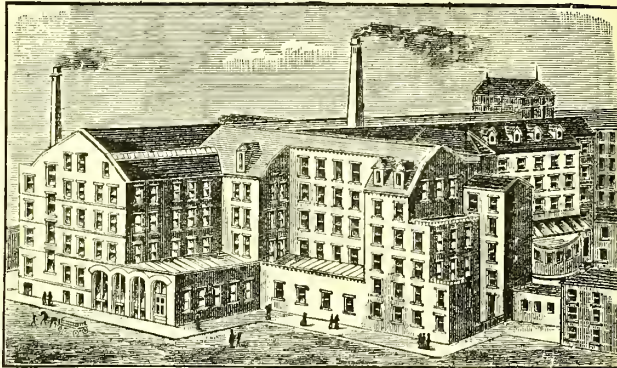
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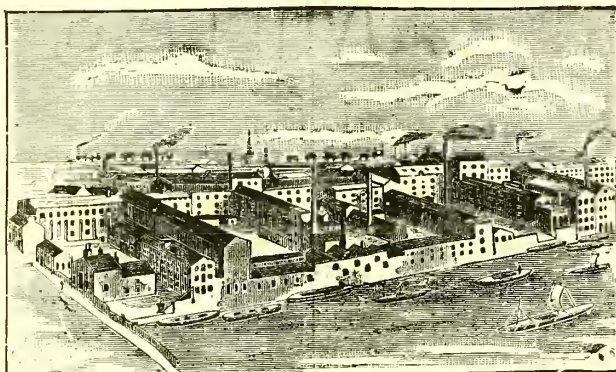
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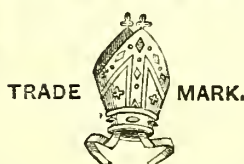
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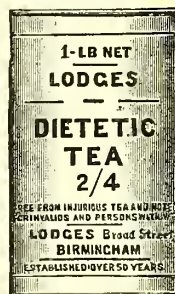
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Brady and Hinchliffe
Bush, W. J., & Co. Foam Producer, &c.]
Favarger, H.
Pevre, T.
Gueret Freres
Tyler, Hayward, and Co.
ALKALOIDS
Howards and Sons (Cinchona)
Smith, T. and H.

ACETIC ACID

Dunn and Co.
Greiff, R. W., and Co.
Morris and Callard (Salts)
Pütz and Hendrichs
AGNCIES ABROAD
Australian Drug Co.
Berkley, Taylor and Co.
Bertie-Smith and Co.
Cooking Japan
Telford, Grunwald and Co. (Melbourne)
Fougera (New York)
Kempthorne (New Zealand)
Lennon, B. G., and Co.
Macnaughton, F. J.
Peake, Allen and Co.
Roberts (Paris, &c.)
Rocke, Tempitt (Melbourne)
Sharland & Co. (Auckland, New Zealand)
Soul, W. H., and Co.
ANALYSIS
Rait, G. L., F.C.S.
APPARATUS
Bracher and Co. Automatic (distilling)
Clarke, S. (Food Warmer and Bed Tray)
Hughes, W. C.
Orme (Scientific)
Perken, Son and Rayment
Tapp and Co.
Rothermel, Paul (Vinegar)
Tippett's (Weighing Machine)

ALMANACKS

Davis, J., and Co.
Ford, Shapland and Co
Townsend, J.
AMMONIA
May and Baker
White, A., and Sons
BANDAGES
Bailey, W. H., and Son
Bale Hall Mill Co.
Robinson and Sons
Schutze, F., and Co.
Seabury and Johnson
BATH GLOVES
Maw, Son and Thompson
Pattison, Geo.
Seabury and Johnson
BICARB. SODA
Gaskell, Deacon and Co.
Howards and Sons
May and Baker
BISMUTH. PREP.
Heaton, Squire and Francis
Hewlett and Sons
Howards and Sons
May and Baker
Symes and Co.
White, Alfred, and Sons
BLOOD MIXTURE
Lincoln and Midland Counties Drug Co.

BOTANIC BEER

Newball and Mason
BOTTLES
Aire and Calder Bottle Co. (Lim.)
Barnett and Foster
Barnett, R. H.
Bennett and Co.
Brady and Hinchliffe
Breit's (Lim.)
Hearn, E. A., and Co.
Isaacs and Co.
Kilner Bros.
Lang, J., and Co.
Maw, Son and Thompson
Potts, H., and Co.
Toogood
BOXES
Anstlin and Co. (Cardboard)
Irvin and Sellers
Metz, Paul (Willow)
Noakes, B., and Co.
Self-Opening Tin Box Co.
BRUSHES
Bailey, C. J., and Co. Toilet (India Rubber)
Dukas and Co.
Sutton, O., and Co. Tooth)
BUTTER COLR. & C.
Bush, W., and Son (Mari-goldine)
Oldfield, Pattinson and Co.
Tomlinson and Hayward

BOOKS

Bayley, C. (Dictionary)
Davis, J.
Hargreaves, Dr.
James, Dr. Prosser
Keene and Ashwell
Kimpton, H.
Loisette, Professor
Miter, Dr.
Wells, G.
CAMPHOR
Howards and Sons
Keene and Ashwell Homeo-
May and Baker
Maw, Son and Thompson
CARMINE
Bush, W. J., and Co.
Sellers, J.
CSCRA SAGRADA
Duncan, Floekhart and Co.
Evans, Sons and Co.
Moss, J., and Co.
Squire and Sons
CAPSULES
Denoval, J. (Medicinal)
Duncan, Floekhart and Co.
Evans, Sons and Co.
Hooper, B., and Co.
Maw, Son and Thompson
Robertson, J., and Co.
DITTO (METLIC)
Betts and Co.
Melin, C. Machine

CATALOGUE

Maw, S., Son and Thompson
(Price Current)
May, Roberts and Co.
Newbery, F., and Sons
Sanger and Son
Thompson, Millard and Co.

CAUTION

Hop Bitters Co.

CEMENT

Fonkes, W. J.

CHALK PRECIP.

Dunn and Co.
Levermore, Aug., and Co.
White, A., and Sons.

CHEMICALS

Bennett and Jenner
Brainwell and Son
Busb, W., Son and Co.
Dunn and Co.
Fletcher Fletcher and Stevenson
Gaskell, Deacon and Co. (Bicarbonate of Soda)
Goodall, Backhouse and Co.
Greiff and Co.
Hill, A. S., and Son
Howards and Son (Pharm.)
Kuhn, B.
Levermore, Aug., and Co.
Loffthouse and Salmter
May and Baker
Morris and Callard
Moss and Co.
Oscar Andree and Co.
Prunk, Davis and Co.
Stern, G. and G. (Pumiline)
Smith, T. and H., and Co.
White, A., and Sons
Zimmermann, A. and M.

CHEST PROTECTORS

Bailey and Son
Hockin, Wilson and Co.
Lynch and Co.
Maw, Son and Thompson
Pattison, G.
Sanger and Sons
Schulze, F., and Co.
Solport Bros.
Thompson, Millard and Co.
Wood, V.

CHL. OF POTASH

Burroughs, Wellcome and Co.
(Compressed Tablets)

CHLORIDE OF LIME

Government Sanitary Co.
National Chemical Co.
New Carbolic Sanitary Co.,
Lima.

CHLORIDE OF GOLD

Oscar Andree and Co.
Rowland, L.

CHLORODYNE

Davenport (Brown's)
Freeman, R.

CHLORFORM, &c.

Duncan, Flockhart and Co.
Loffthouse and Salmter
Macfarlan, J. F., and Son
Smith, T. and H., and Co.
Wright, Layman and Umney
Zimmermann, A., and Son

CIGARETTES

Evans, Sons and Co.

CITRIC ACID

Hassalls (Phospho)
Nascio, Aveline and Co.

COCAINE-HYDRO.

Howards and Sons

COCA WINE

Armbrrecht, Nelson and Co.
Evans, Sons and Co.

COCOA & CHOCOLTE

Cadbury
Fry
Van Houten's Cocoa

COD-LIVER OIL

Allen and Hanburys
Brecke and Woyld
Burroughs, Wellcome and Co.
Evans, Sons and Co.
Hill, A. S., and Son
Loffdod Cod Liver Oil Co.
Paterons Chemical Co.
Smith, T. J.
Woolley, Sons and Co.
Wright, Layman and Umney

COFFEE

Pearse and Wheatley
Symington and Co. (Coffee
Essence)

COLPSIBLE TUBES

Betts and Co.

COMPRESSED

MEDICINES

Allen and Hanburys
Burroughs, Wellcome and Co.
Hooper, B., and Co.
Wyleys and Co.

CONFECTIONERY

Gibson, R., and Sons
Kerfoot, T.
Warwick Brothers

CONCENTRATED

LIQUORS

Evans, Sons and Co.
Fletcher, Fletcher & Steven-
son
Keith, B., and Co.

CORN CURES

Mason, W. B.
Maw, Son and Thompson
Robinson, F.
Sedbury & Johnson (Plasters)
Thompson, M. F.

COTTON WOOL

Haynes, G., and Co. (Absorbent)
Maw, Son and Thompson
Robinson and Sons (Absorbent)
Sanger, J., and Sons
Sedbury and Johnson

DENTIFRICES

Jewsbury and Brown
Maw, Son and Thompson, S.
Newbery and Sons
Sutton, O., and Co.
Thompson and Copper
Woods, W. (Atraca Nut)

DISINFECTANTS

Albanc Paper Co.
Government Sanitary Co.
Hamilton and Co.
Hornby, A.
National Chemical Co.
New Carbolic Sanitary Co.,
Smitas Co.

DISINTEGRATORS

Curter, J. H.
Hardy Patent Pick Co., Lim.

DOG MEDICINES

Spratts (Patent)

DRUGGISTS' SUN.

Ayton and Summers
Evans, Lescher and Webb
(Hawley's Counter Adjuncts)
Evans, Sons, and Co. (Savars)
Hill, A. S., and Son
Idris and Co.
Lynch and Co.
May, Roberts and Co.
Maw, Son and Thompson, S.
Newbery, F., and Sons
Sanger and Sons
Schulze, F., and Co.
Tappard & Co. (Water Softener)
Thompson, Millard and Co.
Toogood, W.
Wood, Vincent

DRUMS, CANS, &c.

Noakes and Co.

DYES

Prunk, Davis and Co.

EAU DE COLOGNE

Parina, J. M.
Shirley, A. W.
Woolf and Son

EFFERVESCENT

Fritz and Co.

ELECTRIC APPAR.

Darton, F., and Co.
Gent and Co.
Orme and Co.

EMBRICATION

Barrett, Joshua
Clark, W.
Elliman, Sons and Co.

ENEMAS

Bailey, W. H., and Son
Ingram and Son
Maw, Son and Thompson
Sanger and Son
Schulze, F., and Co.

ENGRAVERS

Barker, W., and Son
Corman, J. R. (Glass)
Harris, A. J. (Glass)

ESSENTIAL OILS

Bush, W., Son and Co.
Bush, W. J. (Lemon, &c.)
Cooking (Japan Peppermint)
Cunmook, J.
Evans, Sons and Co.
Jackson, J., and Co.
May and Baker
Nascio, Aveline and Co.
Stallman and Fulton
Stevenson and Howell
Stynes and Co.
Treat, R. C.
Warwick Brothers
Wright, Layman and Umney

ETHER

Duncan, Flockhart and Co.
(Chloric)
Howards and Son
May and Baker
Robbins
White, A., and Sons
Wright, Layman and Umney

ESSENCES, FRUIT

AND SOLUBLE

Brady and Hinchliffe
Burgoyne, Burbridge and Co.
Bush, W. J., and Co.
Bush, W., Son and Co.
Cunmook, J.
Goodall, Backhouse and Co.
Hay, W.
Idris and Co.
May and Baker
Oldfield, Pattison and Co.
Stevenson and Howell
Tyrer, R. (Anchovies)
Woolley, Sons and Co.

EXTRACTS, FLUID

Allen and Hanburys
Barber, G., and Co.
Burgoyne, Burbridge
Evans, Sons and Co.
Fletcher, Fletcher & Stevenson
Hearon, Squire and Francis
Hooper, B., and Co.
Moss and Co.
Oldfield, Pattison and Co.

EUCALINUM

Roeke, Tompsitt and Co.
(Antiseptic Poultice and
Vinegar)

EUCALYPTUS OIL

Fletcher, Fletcher & Steven-
son

EXTRACT, MEAT

Australian Meat Co.
Brand and Co.
Johnston's Fluid Beef
Liebig Co.
Liebig's Wine Co.

FEEDING BOTTLES

Breitts, E. and Co., Lim.
Hearn, E. A., and Co.
Hockin, Wilson and Co.
Kilner Bros.
Maw, Son and Thompson
May, Roberts and Co.
Pocock, Kevel and Co.
Thompson, Millard
Toogood, W.

FLY PAPERS

Ford, Shippland and Co.
Wilson, S.

FILTERING

Doulton and Co.
Mawson, Swan and Weddell
Slack and Brownlow
Silicated Carbon Filter Co.

FOOD (Infants & Invalids)

Allen and Hanburys
Benger's Paucetransed
Brand and Co.
Dahl's Dyspepsia Cakes
Goodall, Backhouse and Co.
Hearon, Squire (Malted
Johnston's Fluid Beef
King, F., and Co. (Edwards'
Desiccated Soup)
Liebig Co.
Maclean and Son
Mellins
Mottershead & Co. (Benger's
Food)
Nestle, H.
Ridge, Dr. Food
Van Abbott (Diabetic)
Wyleys and Co.

FORMULAE

Brooks, T.

GINGER ALE

Hay, W. (Essence)
Mills, R. M.

GLYCERINE

Fink
Maw, Son and Thompson
Price's Candle Co.

GRANULAR PREP.

Burroughs, Wellcome and Co.
Bush, W., Son and Co.
Evans, Sons and Co.
Hearon, Squire and Francis
Hill, A. S., and Son
Kerfoot, T.
Wright, Layman and Umney

GUMS

Fink (Arabic, &c.)
Levermore Aug., and Co.
Prunk, Davis and Co.

GUTTAPERCHA

Duncan, Flockhart

HAIR PREP.

Brodie, J. (Imperial Hair Dye)
Chesbrough Mufz. Co.
French Hygienic Society

HERB BEER EXTS.

Newball and Mason
Oldfield, Pattison and Co.
Potter and Clarke

HERBALISTS

Butler, McCulloch and Co.
Newball and Mason (Extract
of Herbs)
Potter and Clarke (Extract of
Herbs)
Wilkinson, A., and Sons (Com-
pressed Hops)

HOMOEOPATHIC

Keene and Ashwell
Leath and Ross
Thompson and Capper
Watts, J. J., and Co.

HOPS

Wilkinson, A., and Sons
(Compressed)

HOP ALEESSENCE

Hay, W.

HOSPITALS

London Homoeopathic

HYPOPHOSPHITES

Duncan, Flockhart and Co.
Dunn and Co.
Fellows
Fletcher, Fletcher & Steven-
son
Raimes, Clark and Co.
Stynes and Co.
Swain, H. H. (Dr. Churchill's)
Yeatman, F. J.

INHALERS

Anderson and Adams
Maw, Son and Thompson
Spence, The, Co. (Dr.
Churchill's)
Toogood, W.

INSECTICIDES

Sanford
Steiner and Co.
Vogt, G.

INK [See MARKING]

Bewley and Draper
Duncan, Flockhart

KETCHUP

Tyrer, P.

LARD

Ewee, J.

LEECHES

Fitch and Nottingham
Potter and Clarke

LIME JUICE

Evans, Sons and Co.
Idris and Co.

LINSEED

Idris and Co.
Mumford, G. S.

LINT

Liverpool Lint Co.
Maw, Son and Thompson
Newsome, C.
Robinson and Sons
Sedbury and Johnson

LOZENGES

Allen and Hanburys
Evans, Sons and Co.
Gibson, R., and Sons (Maufrs.)
Hill and Son
Kerfoot, T.
Raines and Co.
Soden Mineral Pastilles
Warwick Bros.

LOOFAHS

Maw, Son and Thompson
May, Roberts and Co.

MACHINERY

Burroughs, Wellcome and Co.
Carter, J. H.
Hardy Patent Pick Co., Lim.
Mellin, C. (Upsuling)
Tippetts, F. D. (Weighing
Machine)
Werner and Pileiderer

MAGIC LANTRNS

Inghes, W. C.

MAGNESIA

Banner, E. R. (Citrates)
Bush, Son and Co.
Dinnelord
Henry, T. and W. (Calcined)
Hill and Son, A. S.
Kerfoot, T. (Citrates)
Murray, Sir James, and Son
Oscar Andree and Co.

MALT EXTRACT, &c.

Burroughs, Wellcome and Co.
(Kepler's)
Hearon, Squire and Francis

MARKING INKS

Barber, G., and Co. (Crimson)
Christian, J.
Hickson, J.

MEASURES

Hicks, J. J.

MEDICINE CHSTS

Day, Son and Hewitt (Veteri-
nary)
Day and Sons (Veterinary)

MENTHOL

A. J. Menthol Depot, A. W.
Shirley, Proprietor
Castle Menthol Co.
Cooking and Co.
Hockin, Wilson and Co.
Maw, Son and Thompson
Shirley, A. W.

MERCURIALS

Bush, W., and Co.
Howards and Sons
May and Baker

METHYLATED

SPIRITS

Burroughs, J.
Harvey, J. & W., and Co.
Jones and Co.
Phillips, G., and Co.

METHYLENE

Robbins, J., and Co.

MICROSCOPES

Darton, F., and Co.
Inghes, W. C.
Perken, Son and Rayment

MILK

Nestle, H. (Condensed)
Swiss Milk Co. (Powder)

MIXING

MACHINERY

Bracher and Co.
Carter, J. H.
Werner and Pileiderer

MORPHIA

Macfarlan, J. F., and Co.
Smith, T. and H.

MUSTARD

Banner, E. R. (Oil)
Fitch, Rickman and Co.
Johnson, J. H. and S. (Ess. Oil)

NEPENTHE

Ferris and Co.

OILS, PAINTS, &c.

Gregory, W. (Devonshire Oils)
Prunk, Davis and Co.
Vogeler, The Charles A.

OINTMENT BASES

Albort and Co.
Chesbrough (Vaseline)
Green, S. (Singloton's Eye)
Grindley (Petroleum Jelly)

OPTICIANS

Darton, F., and Co.
Perkins, Son and Rayment
Raphael, J., and Co.

PAPAIN FINKLER

Kuhn, B.

PARALDEHYDE

Zimmermann, A. and M.

PATENT AGENTS

Horn and Son

PATENT MEDCNS

Albort and Co.
Armbrrecht, Nelson and Co.
(Coca Wine)
Atkinson and Barber (Infant
Preserv)
Barrett, Joshua (Headache
Cure)
Beecham (Pills)
Crouch, F. B. (Wafers)
Dahl's Dyspepsia Cakes
Edwards and Son
Evans, Lescher (Hawley's
Counter Adjuncts, Coated
Pills, &c.)
Fanning's (Powders)
Holloway (Pills and Oint.)
Hop Bitters Co., (Lim.)
Hill and Son
Kemp, W. H. (Whoopoline)
Lalor (Phospholine, &c.)
Lincoln (Clarke's Mix.)
Mason, W. B.
May, Roberts and Co.
(Hooper's Pills)
Morton, H. (Powders)
Newbery and Sons.
Powell, T. (Balsam of Aniseed)
Roberts and Co. (Foreign)
Singloton's Eye Ointment
Soden Mineral Produce Co.
Swift's Specific
Vogeler, The Charles A. Co.

PEPPERMINT OIL

Banner, E. R.
Cooking and Co.
Jackson, J., and Co.

PEPSINE, &c.

Burroughs, Wellcome and Co.
Claridge and Co.
Fletcher, Fletcher & Stevenson
Newbery (English)
Warner and Co. (English)
Zimmermann

PERFUMERY,

FANCY SOAPS

Atkinson, J. and E.
Bates, F. W.
Brecknell, Turner and Sons
Chesbrough Manufacturing Co.
Chiswick Soap Co.
Coward and Co.
Crown Perfumery Co.
Durrant, Geo.
Ewen (Soaps)
Farina, J. M.
Foulkes, W. J. (Nursery
Powder)
French Hygienic Co.
Greenhill, T. S., and Son
(Mona Bonquet)
Mack, H.
Maw, Son and Thompson
Moody, S. W.
Newbery and Sons
Price's Patent Candle Co.
Royal Perfumery Co.
Sainsbury, S. (Lav. Water)
Shipkoff and Co.
Shirley, A. W.
Stern, G. and G. (Pumiline)
Thompson, Millard and Co.
Travado, S., and Co.
Treat, R. C.
Warwick Brothers
West, T. (Ozell's Mona)
Woolley, Sons & Co. (Powder)

PEROK. OF HYDR.

Dunn and Co.
Robbins and Co.

PHARM. PREPS.

Allen and Hanburys
Barron, Squire and Co.
Benger's
Burgoyne, Burbridge
Burroughs, Wellcome (Vari-
ous)
Duncan, Flockhart
Ferris and Co.
Fletcher (Lgrs. for Syrups)
Greiff, R. W., and Co.
Harvey, A. W.
Hearon, Squire and Francis
Hewlett and Son
Hill, A. S., and Son
Hooper, B., and Co.
Keith (Conc. Tinctures)
Kuhn, B.
May and Baker (Phenacetine)
Sellers, J.
White, Alfred, and Sons
Woolley, Son- and Co.
Wyleys (Various)

PHOTOGRAPHIC

Edwards and Grey
Howards and Son (Chemicals)
May and Baker
Oscar Andree and Co.
Perken, Son and Rayment
White, Alfred, and Sons

PLASTERS

Evans, Sons and Co.
Mather, W.
Maw, Son and Thompson
Ondham, J., and Co.
St. Dalmaz, A. De
Sedbury and Johnson
Smith, W. F.
Thompson, M. P.

PILLS (Coated, &c.)

Allen and Hanburys
Beecham, Thomas
Blair's Gout Pills
Evans, Sons and Co.
Hearon, Squire and Francis
Hill, A. S., and Sons
Hooper, Dr.
Holloways
McKesson and Robbins
Newbery and Sons
Sanger, J., and Sons
Smith, W. F.
Swann, H. H.
Warner, W. R. (Coated
Wyleys and Co.

PILL MACHINES

Bracher and Co.
Maw, Son and Thompson
McFerran, J. A.
Robertson, J., & Co. (Coating)
Toogood, W. (Coater)

PINE PRODUCTS

Burroughs, Wellcome and Co.
Stern, G. and G.

PODOPHYLLIN, &c.

Keith, R., and Co
Smith, T. and H.

PORCELAINGOODS

Poths, H., and Co.
Toogood, (E.C. Pots, regist.)

POLISHING

Baumgartner (La Brillantine)
Bradley, Bourdas (Albatum)

Clark, W.
Oakey, John, and Sons

PRINTING

Bowers Bros.
Facsimile Apparatus Co.

Ford, Shapland and Co.
Silverlock, H.

Townsend, J. (Exeter)

PUMILINE

Stern, G. and G.

QUININE SALTS

Howards and Sons
Kuhn, B.

Oscar Andrae and Co.
Zimmermann and Co.

RECIPES

Brooks, T.

RENNET

Benger's (Essence of)
Duncan, Flockhart and Co.

Oldfield, Pattinson and Co.

SACCHARIN

Allen and Hanburys
Burroughs, Wellcome and Co.

SALICIN

Macfarlan and Co.
Smith, T. and H., and Co.

SALOL

Kuhn, B.

SAUCES, PICKLES

Goodall, Backhouse and Co.
Tyrer, P.

SCHOOLS OF**PHARMACY,****HOSPITALS, &c.**

Central School of Chemistry
and Pharmacy

City School of Chemistry and
Pharmacy

Liverpool School
London Homoeopathic and
Medical School

Manchester College
South London School of
Pharmacy, Ltd.

The School of Pharmacy
Westminster College

SEALING WAX

Fisher, Clark and Co.
Waterston, G., and Sons

SELTZOGENES

Fevre, T.
Idris and Co.

May, Roberts and Co.

SHAVING

Hovenden and Sons
Lydd, Mrs., Enxesis

SHEEP DIP

Cooper, W., and Nephews
Grindley and Co.

Tomlinson and Hayward

SHOP FITTERS

Bowling and Govier
Bygrave, J. and W.

Corsau, J. R.
Harris, A. J.

Howlett, S.
Natali, E. (Show Cases)

Yates, W. S.

SOAP

Chiswick Soap Co.
Maw, S., Son and Thompson

Mount Carmel Soap Co.
Pear's Soap

Stern, G. and G. (Pumiline
Toilet and Sanitary)

SPECTACLES

Botwright and Grey
Barton, F., and Co.

Raphael and Co.

SPIRIT

Boord and Son
Burroughs (Pure and Methyl.)

Harvey, J. W., and Co.
Jones and Mason (Methyl.)

Macnair, J. and D.
Phillips and Co.

Smith, Stephen and Co.

SOZOIODOL

Roshni, F.
Trommsdorff, H.

SPONGE

Cresswell Bros.
Cresswell, R., and Co. (Lim.)

Maw, Son & Thompson (Bags)
Peterson, M., and Co.

STAMPS (RUBBER)

Hickinson, J.
Pollard, A. W.

Richard, E. M.

STOPPERS

Austin and Co. (Sprinklers)
Barnett and Foster (The
Eclipse)

Clark, S., and Co.

STOVES**STROPHANTHUS**

Burroughs, Wellcome and Co.

SURGICAL

Ayrton and Saunders
Bailey, W. H., and Son

Christy and Co.
Cocking, J. T.

Haywood, J. H.
Ingram and Son

Liverpool Patent Lint Co.
Maw, Son and Thompson

Robinson and Sons
Schutze, F., and Co.

Thompson, Millard and Co.
Woolley, Sons and Co.

Wood, Vincent

STRACH

Critchley (Gloss)

SUGAR

Gihson, R., and Sons

SULFONAL

Burroughs, Wellcome and Co.
Greiff, R. W., and Co.

May and Baker

SYPHONS

Barnett and Foster
Favarger and Co.

Fevre, T.
Kilner Bros.

SYRINGES

Maw, Son and Thompson, S.
Schutze, F., and Co.

SYRUPS

Churchill, Dr.
Fletcher, Fletcher (Liquors)

Idris and Co.
Swann, H. H.

TARTARIC ACID

Greiff, R. W., and Co.
Oscar Andrae and Co.

TIN CANISTERS

Noakes, B., and Co.

TEA

French and Langdale
Gt. Tower St. Tea Co.

Heseltine, Wm., and Son
Kearley and Tonge

Lodge, R. L. and J. L.
Pearse and Wheeler

Walker and Dalrymple

THERMOMETERS

Bailey, W. H., and Son.
Barton, F., and Co.

Maw, Son and Thompson
Perken, Son and Rayment

Raphael and Co.

TOILET

Albucar Paper Co.
Downing, J. S. (paper)

Foulkes, W. J.
French Hygienic Co.

Hygienic Paper Co. (paper)
Mack, H.

Ouellet, H. C.
Travaux, S., and Co.

TOOTH PASTE

Jewsbury and Brown
Maw, Son and Thompson

Sutton, J., and Co. (Black)
Woods, M. (Arecu)

TRADE MARKS

Horn and Son

TRUSSES

Atkinson, B. F.
Bailey, W. H., and Son

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COMPANY'S

EXTRACT

OF MEAT.

**** Ask for the COMPANY'S Extract, and see that it bears Justus von Liebig's SIGNATURE IN BLUE INK across the Label.**

Clarke's Newly Designed "Pyramid" Nursery Lamp Food Warmer, with New Registered Panakin.



N.B.—NO ALTERATION IN THE PRICE OF THE OLD PATTERN "PYRAMID" FOOD WARMER.

CLARKE'S IMPROVED PANAKINS (REGISTERED) FOR USE
WITH CLARKE'S "PYRAMID" NURSERY LAMP.

By this invention any liquid food can be poured out, or drunk, without seum or grease passing through the spout, as prevents spilling when poured into a Feeding Bottle, so objectionable with all other Panakins. These Panakins will fit all the old "Pyramid" Nursery Lamps, and can be purchased separately.

WHOLESALE PRICES { No. 1 ... 30 per dozen. } Cash discount, 5 per cent.
LAMPS COMPLETE { " 2 ... 33 "
" 3 ... 36 "

N.B.—Extras. Porcelain Panakins per dozen, No. 1 ... 8' ... Lids ... 2'

Tin Panakins, No. 1, 8' ... No. 2, 10' ... No. 3, 12' ... 4

Clear Glasses, 4' ... Roughed, 6' ... Opaline, 8' ... Coloured, 8' ... Ruby, 8'

N.B.—Ask for CLARKE'S PANAKIN, and see that his name and the registered number (Registered 91,241) is on the Panakin, and trade mark "PYRAMID."

Clarke's Patent "PYRAMID" NIGHT LIGHTS are the only Lights suitable for these Lamps. Sold Retail by all respectable dealers, and Wholesale by the Patentee, S. CLARKE, "PYRAMID" AND "FAIRY" LIGHT WORKS, CRICKLEWOOD, LONDON, N.W. London Show Room—31 ELY PLACE, HOLBORN CIRCUS, E.C.

CLARKE'S ADJUSTABLE BED-TRAY (COUSIN'S) PATENT

FOR INFANTS AND INVALIDS.

For use with CLARKE'S "PYRAMID" NURSERY LAMP FOOD WARMER, with his NEW REGISTERED PANAKIN.

This is an invaluable invention, and useful appliance at the bedside, suitable for Invalids, and particularly for Parents whose Infants require Feeding during the night. It obviates the necessity of getting out of bed, as everything required for use can be put on the Tray. The Tray is adapted for use in connection with Clarke's "Pyramid" Food Warmer, and when not required can be turned to the wall in such a manner as to Shade the Person in bed from the Rays of the Light.

Invalids will find it a Great Comfort, for any book, plate, basin, &c., can be placed thereon ready for use, and obtained without altering the position in bed. By means of a Slide, the Tray can be pulled forward to the position or length required. It is Highly recommended by the Medical Profession, and can be obtained from most dealers in Clarke's "Pyramid" and "Fairy" Lamps.

Tray, 15/-, less 33½ per cent. Food Warmer, see above.

DIRECTIONS FOR FIXING.—Place the Clips round the bed-post, insert the Thumb-screw in the square hole at the end of same, and screw as tightly as possible. The Clips being of spring-steel, they will fit any size post. A little cloth or wash-leather should be placed round the bed-post to prevent scratching the post.

SAM'L. CLARKE, "Pyramid" and "Fairy" Light Works, CRICKLEWOOD, LONDON, N.W.
SHOW ROOMS—31 ELY PLACE, HOLBORN CIRCUS.

S. MAW, SON & THOMPSON'S

CHEST PROTECTORS AND VESTS

For Shielding the Lungs.

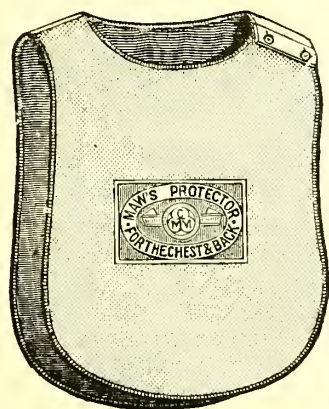


FIG. 3.
Double, for the Chest and Back.

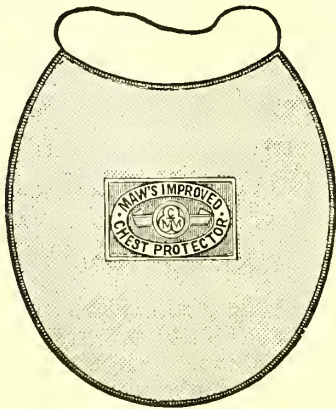


FIG. 4.
Single, Chest Protector.

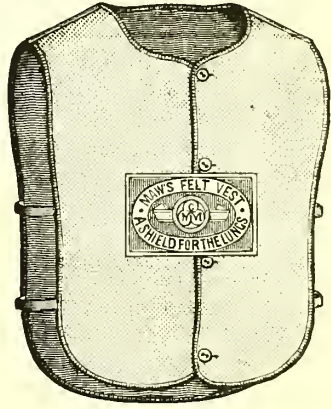


FIG. 5.
Vest, a Shield for the Lungs.

CHAMOIS AND FLANNEL.

					No. 1	No. 2	No. 3	No. 4
Fig. 3.	Double	...	...	per doz.	20/	26/	32/	39/
	Ditto, perforated...	...	...	„	24/	32/	38/	46/
Fig. 4.	Single...	...	...	„	9/	11/6	13/6	16/
	Ditto, perforated...	...	...	„	11/	14/	16/	19/
Fig. 5.	Vests	„	...	„	27/	34/	42/	51/

FELT, ASSORTED SCARLET AND WHITE.

					No. 1	No. 2	No. 3	No. 4	No. 5
Fig. 3.	Double, best...	...	per doz.		17/	22/	27/	33/	44/
	Ditto, second	...	„		14/6	19/	23/	28/	37/
Fig. 4.	Single, best ...	...	„		7/6	9/6	11/	14/	20/
	Ditto, second	...	„		6/6	8/	9/6	12/	16/
Fig. 5.	Vests, Scarlet	...	„		17/	22/	27/	33/	40/

SPECIAL QUOTATIONS TO WHOLESALE BUYERS.

S. MAW, SON & THOMPSON, LONDON.

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ARE THE BEST AND CHEAPEST.

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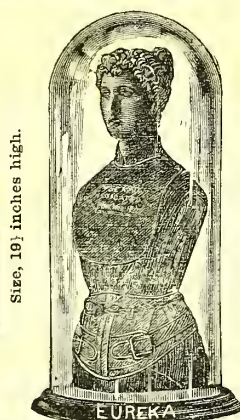
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CAPSULES.**

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Peruvian Mixture Capsules.....	3/ & 2
Mattoo Oil and Copaiba do.....	2/6
Santal Oil do. (36 in each box).....	4/
Cubeb Oil and Copaiba do.....	2/3
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Copaiba Capsules, No. 0.....	1/6
" " No. 1.....	1/3
" " No. 2.....	1/
Copaiba, Alum and Cubebs.....	1/6
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Male Fern Oil.....	8/
Cod Liver Oil.....	1/6
Castor Oil.....	1/3
Denoual's Injection (to insure a radical cure in two days).....	2/9

ALL DRUGS WARRANTED TO BE GENUINE.

JULES DENOVAL,

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Size, 10 inches high.

**THE NEW MEDICATED
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Trade Mark—"EUREKA."

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Chemists are requested to see our above Specialities before buying elsewhere. Full particulars post free.

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The BEST and SAFEST REMEDY for all Affections of the THROAT, CHEST, LUNGS, COUGHS, ASTHMA, SORE THROATS, BRONCHITIS, CATARRH, CONSUMPTION.

19 HARLEY STREET, CAVENDISH SQUARE, W.—I have watched the effects of the Soden Waters for a considerable period, and regard them as extremely valuable in obstinate Catarrhal Affections of the Throat. The small amount of iron which they contain renders them very useful in the early stages of Throat Consumption, and they do good in nearly all cases of relaxation of the mucous membrane. The Soden Mineral Pastilles offer a most convenient method of using the Waters, producing both a Local and General effect. They are especially beneficial in Catarrhal Diseases of the air passages. I frequently found them of great service in the case of Singers and Public Speakers. (Signed)

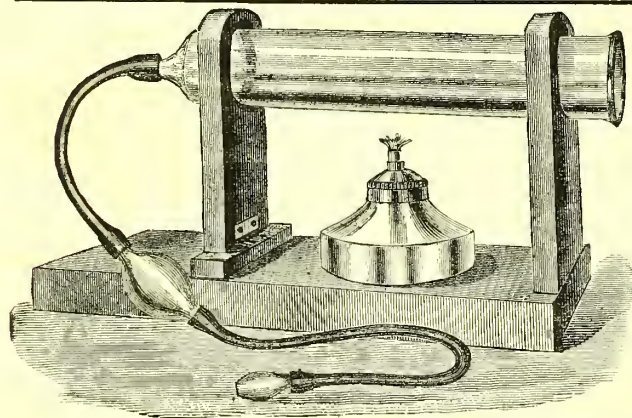
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Any Chemist applying to us will be supplied gratis with Counter Bills, size about 11 x 9, printed on one side only; also with Transparent Showcards for the window.

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The simplest Apparatus yet introduced to the profession.
Requires no strong caustic or acid liquids.
Fumes are invariably neutral.

To be had of all Chemists and Sundriesmen, and of the Proprietors—

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PATENT APPLIED FOR.

**DR. RENNER'S ESTABLISHMENT FOR
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186 (late 228) Marylebone Road, London, N.W.

VACCINATION FROM THE CALF DAILY FROM 11 TO 12 O'CLOCK

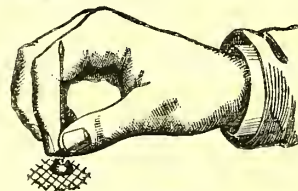
Reduced price of Calf Lymph (daily fresh).

Tubes	{ Large	...	...	2s. each, or 3 for 5s. 6d.
	{ Small	...	...	1s. " " 2s. 9d.
Points	{ Large	...	...	1s. " " 2s. 6d.
	{ Small	...	...	9d. " " 2s.
Squares	...	...	...	2s. 6d. each.

Registered Telegraphic Address—"VACCINE LONDON."

Sent on receipt of remittance addressed to the Manager of the Establishment. Discount to the Trade.

Trade Mark.



Registered.

**THE
ASSOCIATION for the SUPPLY of PURE VACCINE LYMPH,
12 PALL MALL EAST, LONDON, S.W.
SOLE AGENTS FOR DR. WARLWORTH'S CALF VACCINE.**

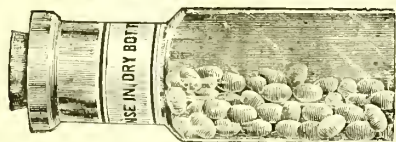
Tubes, 2s. each; Half Tubes, 1s. each. Pomade in vials, 5s.
HUMAN VACCINE, from healthy children only, microscopically examined and source quoted. Tubes, two-thirds full, 1s. 8d. each; Tubes one-third full and Lancet-charged Points, 1s. each; Pin-points, 1s. 1d. each. Eighteen charged Small Points, 5s. Tubes, two-thirds full (same as those mentioned above, but without source), in quantities for export, 45 per 100 Tubes. Pin-points uncharged, 1s. per dozen. Vaccine Ejectors 1s. 3d. each, including postage. Vaccinations by appointment. P.O.O.'s (including postage, and crossed London and Westminster Bank), with orders, payable to
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Office hours, 10 to 4; Saturdays 10 to 2.

"The Pills of McKESSON & ROBBINS are quite of the highest class of merit, in respect to the method, in respect to the materials, and in respect to results."—*British Medical Journal*, October, 1881.

A TASTELESS TONIC LAXATIVE GRANULE.

EXACT
SIZE



McK. & R.
PILLS.

Sample Bottles containing 25 Pills, 7s. per doz.; Bottles containing 100 Pills, 24s. per doz.

Formula, Aloin, Strychnine, and Belladonna.—McK. & R. PILLS

Aloin, 1-5 gr. | Strychnina, 1-60 gr. | Ext. Belladonnæ, 1-8 gr.

DOSE.—One pill three times a day. Morning, noon, and night. Where a painless peristaltic action is desired by the aged or female patient, one pill may be taken every night or second night at bedtime, as directed by medical attendant.

BITTER AND NAUSEOUS DRUGS IN PALATABLE GRANULES.

Calcium Sulphide .. 1/10 gr.	Ergotiu, equal ... 3s. Ext. 3 gr.	Morphine, Muriate 1/2 gr.	Quinine, Bi-Sulphate .. 1/2 gr.	Rhubarb Comp. B.P. ... 5 gr
" " .. 1/2 gr.	Euonymin 2 gr.	" " 1 gr.	" " .. 1 gr.	Salicylic Acid 2 gr
" " .. 1/2 gr.	Iodoform 1 gr.	Opium, Powdered 1 gr.	" " .. 1 gr.	" " 5 gr
" " .. 1 gr.	" and Iron .. 1 gr.	Podophyllin 1 gr.	" " .. 2 gr.	Strychnine 1/2 gr
Cannabis Indica Ext. 1/4 gr.	Ipecac. Powdered ... 1/4 gr.	" " 1 gr.	" " .. 3 gr.	Zinc. Phosphide 1/2 gr
" " .. 1/4 gr.	Mercury Bin-Iodide .. 1/4 gr.	" " 1 gr.	" " .. 4 gr.	" " 1 gr
Cascara Sagrada Ext. 3 gr.	" Proto-Iodide .. 1/4 gr.	" Comp. 1 gr.	" " .. 5 gr.	" Valerianate..... 1 gr

In this form the ingredients are not only perfectly preserved, but do not affect the teeth, or offend the palate, and, further, can be conveniently kept out of sight by those who object to be regarded as invalids. Complete list mailed free on application.

PLEASE SPECIFY McK. and R. PILLS.

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PUMILINE.

THE ONLY PURE ESSENCE AND
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PUMILIO PINES.

FOR GOUT, RHEUMATISM, SORE THROAT, CHEST AFFECTIONS.

SIR MORELL MACKENZIE wrote, December 9, 1887:—"I have much pleasure in stating that I have made use of Oleum Pumillonis during the last twenty-five years, that I consider it a most valuable preparation. It acts as an admirable tonic to the mucous membrane of the air passages in cases of chronic bronchitis and laryngeal catarrh. I am glad, therefore, to hear that the remedy is about to be used on a large scale, and I have no doubt the results will be highly satisfactory.

(Signed)

"MORELL MACKENZIE, M.D."



THE SNOW-GROWN PINUS PUMILIO.

PUMILINE ALONE, with the single exception of Pinol, possesses the physical and chemical properties which give it the faculty of being administered internally with SAFETY. It is, therefore, essential for Chemists to use Pumiline, as it is the only preparation obtained from snow-grown Pumilio Pines.

FOR TRADE PRICE LISTS, PAMPHLETS, ANALYTICAL REPORTS, &c.—

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VALUABLE & INTERESTING TO EVERYBODY. COMPRESSED HOPS.

Best Hops compressed into small parcels of one pound and half-pounds, and sent out in cases containing 30 lbs. each. These Hops are specially selected and compressed for keeping purposes, and will retain their aromatic strength for a considerable time.

They are introduced to the Public to enable them to make their own BITTERS, YEAST, HOME BREWING and numerous other purposes. Full particulars given on each packet.

P.S.—Chemists will naturally see the great advantage in making their own Bitters from the Pure Hop itself.

Specially Packed by **A. WILKINSON & SONS, 27 Derby Lane, Old Swan, LIVERPOOL.**

SAMPLES AND QUOTATIONS ON APPLICATION.

Sole Agents for Chemists—EVANS, SONS & CO., Liverpool; EVANS, LESCHER & WEBB, London; EVANS, SONS & MASON, Lim., Montreal.

A N

IMPORTANT NOTICE

TO

THE TRADE.

We have now in Stock, ready for delivery to the Trade, some new designs in Show Cards, representing our Trade-marks, the upright Monk on one side, and the Horse Head and Shoe on the other. A portion of these are printed in Tints and the balance in twelve colours, and are considered by the best judges to be the finest productions ever turned out by that celebrated firm, Messrs. Mansell & Co., of Red Lion Square, E.C. These are from the original paintings now in our possession.

The Show Cards are particularly calculated for the best class of Chemists' Shops, and we trust the Trade will give these that prominent display which the quality of the work and the popularity of ST. JACOBS OIL demand. These, together with other original and attractive matter, will be sent forward to all dealers who sell ST. JACOBS OIL, carriage paid, on receipt of proper shipping instructions.

THE CHARLES A. VOGELER CO.
45 FARRINGDON ROAD, LONDON, E.C.

Telegraphic Address—"RUMATIX LONDON."

Telephone, No. 6,714.

Evidences.

LONDON]

NOVEMBER 10

[1888.

Nutritive Worth of Cereals.

Instead of from barley, wheat, and oats, Kepler Malt Extract is manufactured from the choicest Winter Barley, because—

1. No other grain can compare with it for Malting.

EVIDENCE.

- (a.) "Any of the cereals may be employed in the preparation of malt, *but barley is preferred for this purpose*."—Muspratt's Chemistry, Vol. I.
 (b.) "Other grains, such as wheat, oats, rye, and even Indian corn may be malted, but *experience has shown that barley is the grain best adapted to the process*."—Miller's Chemistry, Part III.
 (c.) In his "Chemie," Part II., Bersch says the same (see below.)

2. No other grain can compare with it in diastase.

EVIDENCE.

- (a.) Muspratt reports:—"Barley yields the greatest percentage of *diastase*."
 (b.) Bersch says:—"In the manufacture of malt, those grains only are used in which, during germination, *diastase* is developed, and among them *barley takes the first rank*."—"Chemie," Part II.
 (c.) Sir Wm. Roberts says:—"In malted barley we have at command an unlimited supply of *diastase power*."
 (d.) Miller says:—"It yields the largest quantity of *diastase*."

3. No grain uniformly surpasses it in Nitrogenous Bodies.

EVIDENCE.

- (a.) Parkes says (5th ed. p. 252):—"Barley contains rather more protein bodies than wheat."
 (b.) Muspratt gives its average percentage in protein substances as 15 per cent., and states that the great variations found in wheat do not occur in barley.
 (c.) Blyth gives the percentage in barley as 12.1, in barley-malt as 13.6, in wheat as 12.42, and in oats as 11.73.

4. No other grain comes anywhere near it in carbo-hydrates.

CARBO-HYDRATES IN BARLEY, WHEAT AND OATS.

BARLEY.	WHEAT. (251 analyses).	OATS (ground).
82.2	67.89	55.43

OBSERVATIONS & CONCLUSIONS.

- (a.) Barley is unparalleled for malting, and is therefore used in making beer and Kepler Extract of Malt.
 (b.) As a source of diastase, Barley is the only grain worth mentioning.
 (c.) Barley contains $\frac{1}{5}$ more carbo-hydrates than wheat, and nearly half again as much as oats, so that a tremendous loss in carbo-hydrates would be entailed if wheat or oats were substituted for barley.
 (d.) Barley surpasses wheat and oats in the aggregate amount of proteids, so that if either wheat or oats were substituted for it there could not be a gain of even so much as $\frac{1}{2}$ of 1 per cent.

GENERAL.

Barley "is certainly very nutritious, and the Greeks trained their athletes on it. Its richness in *phosphoric acid and iron* renders it particularly adapted for this" (Parkes). "In the time of Charles I., Barley Meal almost entirely took the place of wheat as the food of the common people, especially in the north of England" (Blyth). Wheat not only falls far below barley in carbo-hydrates, but is "deficient in fat and in vegetable salts which may form carbonates in the system" (Parkes). "Oats is a good all-round food," for it contains 6 per cent. of oil, a fair amount of proteids, and is half starch, etc., but of course the oil is of no account in malting.

REPORTS.

LONDON MEDICAL RECORD reports:—"By their new process, which includes evaporation at an unusually low temperature, all of the diastase is fully preserved, and the Kepler Extract will be found *unequalled in its power of digesting starchy or farinaceous foods*." "As an article of diet in wasting diseases, the Kepler extract is liked by patients, and is often taken readily when other forms are not retained. It is a good plan to begin with a teaspoonful three times a day, but the dose may be rapidly increased to a tablespoonful or more. One of the best vehicles for taking the Extract of Malt is a little warm milk, but some people prefer it alone, whilst others like it with soda-water. It speedily improves the powers of assimilation, and in many cases of consumption, scrofula, and many wasting diseases, especially of children, a wonderful improvement in the patient's condition may be noticed after even a fortnight's treatment. The introduction of the Kepler Extract of Malt is a decided advance in therapeutics."

WARNING.

Kepler Extract of Malt is made from Barley only. It is not black, vapid, sour, but delicious. Please specify "Kepler."

BURROUGHS, WELLCOME & CO., Snow Hill Buildings, LONDON, E.C.,

Will be happy to supply trial Specimens to medical men free on request.

"VASELINE."

NOTICE !! All sizes of our Preparations of Petroleum Jelly can now be obtained PROMPTLY from any of the Wholesale Houses.

The fancy word "VASELINE" indicates our make of Petroleum Jelly. It is the Registered Trade MARK of THIS Company and cannot be applied to any other goods without infringing the rights of this Company under the Trade Mark Act.

SEND FOR NEW PRICE LIST.

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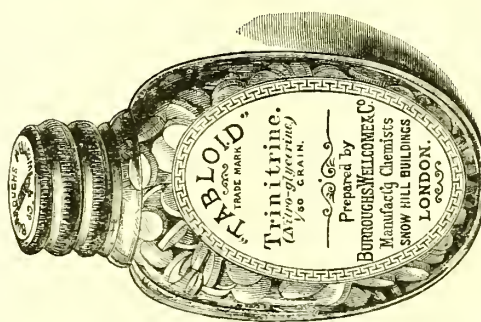
42 HOLBORN VIADUCT, LONDON, E.C.,

Proprietors and SOLE Manufacturers of the "VASELINE" Preparations.

TRINITRINE.

"Trinitrine is the new name for nitro-glycerine, the general application of which has been advocated by Hildrich, Wametz, Hildrich and other Continental observers. Its occurrence in prescriptions is less likely to alarm the sensitive of delicate, nervous, or highly strung patients than the more commonly employed term. The tablets of compressed trinitrine are made with sugar of milk, which is admirably adapted for the purpose, and dissolves much more rapidly than any of the ordinarily employed excipients. We have made trial of these new tablets and find that they answer admirably. The compound trinitrine tablets containing in addition to nitro-glycerine, nitrate of amyl, menthol, and capicum, constitute a valuable preparation, and will in all probability, speedily replace the official formula."—*Lancet*, April 24, 1886.

In full doses Trinitrine accelerates the heart's action, dilates the arterioles, flushes the face, and produces headache. Too large a dose may cause languor, nausea, pain in the stomach, and occasionally even temporary unconsciousness.



Tablets.	Gr.	In bot. Recap.	To the trade.
Trinitrine (Altem. officine)	1/100	25	7 0
"	1/100	10	2 0
"	1 50	25	18 0
"	1 50	25	18 0
Trinitrine and Amyl Nitrite	1 0	100	2 0
"	1 0	25	18 0
"	1 0	25	12 0
Trinitrine Comp.	1/100 gr.	100	4 0
"	1/100 gr.	100	36 0
Trinitrine Comp.	1/100 gr.	100	1 6
"	1/100 gr.	100	12 0
"	1/100 gr.	100	1 6
"	1/100 gr.	100	12 0

BURROUGHS, WELLCOME & CO.
SHOW HILL BUILDINGS, LONDON, E.C.

J. & E. ATKINSON'S PERFUMERY. CAUTION.

"TRADE MARK" AND NEW REGISTERED LABEL.

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POST-CARD COMPETITION.—No. 11.

CONTRIBUTORS to this department are requested to remind themselves that Christmas is approaching, and chemists, like other tradesmen, ought to be prepared to take the utmost advantage of the lavishness which purse-owners are apt to display at that season. Some of our correspondents think that chemists do not make as much out of their beautiful windows as might be the case; and the proposal is that during this month of November competitors shall send to us suggestions on post-cards for novel or effective window displays. It is hoped that from the combined wisdom thus contributed some suggestions may be compiled which, being taken advantage of, will enable many members of the trade to enjoy with extra satisfaction the little extra indulgences which even they will perhaps allow themselves. The usual guinea will be given for the post-card which is thought to give the most valuable hints. Suggestions may be illustrated by diagrams or not, as the writers please. Subscribers and their employes only are eligible to compete.

The “Treatise on the Art of Dispensing” may be obtained in America from our agent, Mr. Harry V. Dakers, 45 Liberty Street, New York, at \$1.

The “Treatise on the Art of Dispensing” may be obtained in Australia from the office of THE CHEMIST AND DRUGGIST OF AUSTRALASIA, price 5s.

“THE ART OF DISPENSING.”

THE second edition of this work is now being delivered to us by the binders, and we are rapidly filling the many orders which we have on hand. We can send copies by post for 3s. 10d., or it may be obtained from the wholesale houses at the published price, 3s. 6d. We shall next week publish a list of over fifty firms who stock the book.

‘HANDY BOOK OF MEDICINE-STAMP DUTY.’

By E. N. ALPE, of the Middle Temple and the Inland Revenue Department, Somerset House. Price 2s. 6d., post free 2s. 9d.

THIS work gives a synopsis of the interpretations of the Board of Inland Revenue on doubtful points in the Medicine Stamp Acts. It shows the concessions which have been made by the Commissioners, and explains the reasons on which their interpretations and concessions are based. It may be ordered from most of the wholesale houses, and can be supplied with goods at the published prices. We cannot send single copies to wholesale houses for enclosure.

THE CHEMIST AND DRUGGIST OF AUSTRALASIA, published monthly at our Melbourne office, can be supplied to subscribers outside Australasia at 5s. per annum, payable in advance, and commencing at any date. Chemists interested in the drug trade and the pharmaceutical affairs of the Australasian Colonies will find a full record of all events affecting their occupation in *The Chemist and Druggist of Australasia*. Single copies can be supplied at 6d. each. Application should be made by English or American subscribers to the office at 42 Cannon Street, London.

PARLIAMENTARY NEWS.

PHARMACY ACT (IRELAND), 1875, AMENDMENT BILL.

ON the motion for going into Committee on this Bill on Wednesday next (November 14) Dr. Tanner will move to insert in the 6th clause (end of sub-clause 4):—

“But if the candidate fail to pass such examination, his fees shall be returned.”

The 6th clause, we may explain, deals with the examination and registration of chemists and druggists styling themselves as such prior to January 1, 1883. Sub-clause 4 fixes the examination fee at two guineas, exclusive of a registration fee of half a guinea.

Dr. Tanner will also move the omission of clause 11, which requires an annual payment of half a guinea to the Pharmaceutical Society by pharmaceutical chemists who are not members of the Society. He will also move the omission of clause 13, inserted by the Committee of the House of Lords, and intended to compel every registered druggist to conspicuously display outside his place of business a notice in legible characters, as follows:—“Not licensed to dispense or compound medical prescriptions.”

THE SALT UNION.

SIR G. CAMPBELL asked the President of the Board of Trade, on Thursday, whether combinations to establish monopolies, and raise the price of salt and other articles by means of rings or trusts, were offences against the law of conspiracy, or against the laws making penal proceedings in restraint of trade in salt or other articles of consumption.

Sir M. Hicks Beach—We have no information before us which would justify our taking the advice of the law officers on the subject.

Sir G. Campbell gave notice that he would take an early opportunity of calling attention to the question.

Mr. Bradlaugh asserted that in the law reports there was a case of conviction for a combination to raise the price of salt.

Sir M. Hicks Beach—That may be. Every particular case must be judged on its merits.

Metropolitan Reports.

A CITY ARBITRATION COURT.—The Common Council of the City of London have for some time past had under consideration a proposal for the establishment of a chamber of arbitration, and a committee appointed to plan a scheme and to ascertain the opinion of the mercantile community recommend that steps be taken to establish the chamber. The Council will probably discuss the matter at their next meeting.

AN IMPECUNIOUS DOCTOR.—John Robert Stuart (37), stated to be a doctor of medicine, although there is no one of that name on the "Medical Register," was charged at Marylebone Police Court on Wednesday with attempting to procure alms by means of a begging letter at Great Cumberland Place, Marble Arch. Proof of the offence was given, and a witness spoke of the prisoner as a man of great ability, and said he would have done well in his profession if it had not been for the drink. He was sentenced to one day's imprisonment.

PHARMACEUTICAL EVENING MEETING.—We have received from Mr. Bremridge the following amended notice of the meeting to be held on Wednesday next at 8 P.M.:—"Communication from the Research Laboratory of the Pharmaceutical Society. Chemical Observations on Tartar Emetic, by Professor Dunstan and Miss L. E. Boolc. (1) The Volumetric Estimation of Tartar Emetic; (2) The Action of Alcohol on Aqueous Solutions; (3) The Specific Rotation of Aqueous Solutions; (4) An Examination of Commercial Specimens; (5) The Preparation of the Pure Salt for use in Medicine. Note on two Resins used by the Ancient Egyptians, by E. M. Holmes.

SALE OF PATENT MEDICINES.—On November 2, at Bow Street Police Court, George P. Pond, chemist, of Fleet Street, was summoned for selling patent medicines without the necessary Inland Revenue stamp. Mr. Kingdon prosecuted. We understand that there were summonses in respect of seven different articles, including corn solvents, toothache tinctures, a toothpaste (described as intended to beautify the gums and prevent toothache), essence of ginger, &c. Fines were inflicted in four cases, but in three the summonses were dismissed. The only report we have been able to obtain is not intelligible, and Mr. Pond declines to assist us by showing us the articles for the sale of which he was prosecuted.

SOCIETY OF ARTS.—The one hundred and thirty-fifth session will commence on Wednesday, November 21, with an opening address by the Duke of Abercorn, C.B., chairman of the council. At the first ordinary meeting of the society a paper will be read by Colonel Gouraud, on "The Phonograph." This will be followed by one by Mr. Henry Edmunds, on "The Graphophone." At the other two meetings to be held before Christmas the papers will be by Mr. W. H. Deering on "Explosives," and by Mr. W. J. Dibdin on "Standards of Light." Among the papers announced for the latter part of the session may be mentioned—"The Forth Bridge," by Mr. Benjamin Baker; "The Channel Tunnel," by Colonel Hozier; and "Secondary Batteries," by Mr. W. H. Preece, F.R.S. The first course of Cantor Lectures will be by Captain W. de W. Abney, C.B., F.R.S., on "Light and Colour." The Juvenile Lectures, at Christmas, will be given by Professor Henry E. Armstrong, F.R.S., the subject being a chemical one.

A QUESTION OF LIABILITY.—In the City of London Court on Tuesday, before Mr. Commissioner Kerr, the case of *Fraser & Co. v. Moslin* was adjudicated upon. The proceedings were instituted by Messrs. Fraser & Co., wholesale chemists, &c., of 40 Houndsditch, E.C., to recover payment of 11*l.* 8*s.* 6*d.* for chemicals supplied to the defendant, Mr. J. Stephens Moslin, Bridge House Supply Stores, 1 London Road, Brentford. The defence was the money was due from the father of the defendant. The plaintiffs' traveller said the chemicals were sold under the representation made by the defendant that the shop was his own. He took the order from the defendant personally. The defendant: And I gave the order as manager for my father. My father is now in the Bankruptcy Court. The learned Commissioner: Oh! The plaintiffs' traveller said they supplied the defendant with chemicals for some months, at the expiration of which

time there was a small balance due, which the defendant disputed on the ground that he had not given a written order for the goods supplied. In future, he said, all orders must be in writing, and signed by him. The defendant then gave him another small order, whereupon he wrote to the defendant's father asking if he should execute it; but he got no reply. The defendant then told him the business was his own, and it was upon that representation, and that only, that he took the order. The learned Commissioner: But I see the defendant had written to say he is under age. The plaintiffs' traveller: He is married, then. The learned Commissioner: That does not make him over twenty-one, although he is married. The defendant: These goods were given to my wife as a set-off for the money lent to my father by her. The learned Commissioner: There you are, you see. You must make the father a co-defendant, and then I will go into the whole matter between you. The plaintiffs' traveller: The father went wrong, and denies the goods were his. The defendant said a meeting of his father's creditors was held which the plaintiffs refused to attend. The learned Commissioner said the case would be adjourned, and then the plaintiffs could make the father a co-defendant, and the defendant could plead his infancy. Order accordingly.

Provincial Reports.

Items of news, and newspapers containing matters of interest to the trade, sent to the Editor, will much oblige.

BIRMINGHAM.

MR. BARCLAY RE-ELECTED.—Mr. Barclay was re-elected to the Birmingham Town Council on Thursday of last week, as the representative of St. Thomas's Ward, by a majority of 66. The figures were:—Barclay, 1,245; Cuthbert (his opponent), 1,179. Mr. Barclay and one other Gladstonian were the only candidates of that persuasion who survived the contest as councillors.

A SINGULAR CASE OF MORPHIA-POISONING occurred in Birmingham during the latter part of last week. A gentleman named Ernest William Bagley, aged 36, was taken to the Queen's Hospital, suffering from morphia-poisoning. He was detained in the institution, and died the same day, never having recovered consciousness. The deceased was taken to the hospital by Mr. George Ward, of Sampson Road, Sparkbrook, with whom he had been living for nearly a week. When Mr. Bagley went to that gentleman's residence he was in an extremely nervous condition, and in the course of a few days became so ill that he took to his bed. He was attended by Mr. Lloyd, surgeon, of Coventry Road, who, perceiving that deceased was suffering from the effects of morphia, ordered his removal to the hospital. One of the deceased's arms was spotted all over with punctured wounds, evidently caused by an injector, three or four of which instruments, together with a bottle of the narcotic, were found in his room at Mr. Ward's house. The deceased, who was a bachelor, is said to have been highly connected. Previous to coming to Birmingham he was an assistant with Dr. Underhill, of Tipton. The inquest was held on Monday, when Dr. Jordan, resident physician of the hospital, stated that no poison was found in the stomach. The marks on the arms indicated that the poison had been administered hypodermically. A verdict in accordance with this evidence was returned.

BOLTON.

MR. WILLIAM DEARDEN, manufacturing chemist, and Mr. William Blain, pharmaceutical chemist, Market Street, Bolton, were last week successful in their candidature for seats on the Town Council. Mr. Dearden was "the rate-payers' candidate" for Derby Ward, a ward which he formerly represented for some years. Mr. Blain, in Exchange Ward, fought on the Conservative side, in opposition to the candidates of the Ratepayers' Association. He was placed at the head of the poll. One of the local papers speaks of his victory as "a grand success."

BOURNEMOUTH.

THE SOUTH HANTS DRUG STORES, Pokesdown, a suburb of Bournemouth, has just changed its proprietor, and will in future be conducted by Mr. Noble, a duly qualified chemist and druggist.

THE SOUTHERN DRUG COMPANY have circulated a legal-looking "warning," declaring that—Whereas certain evil-disposed persons have falsely and maliciously fabricated and circulated sundry scandalous and unfounded reports respecting the Southampton Drug Company (Limited), whereby they hope to persuade the public that the preparations sold by the company are of doubtful character and inferior quality; and whereas the same or like false and scandalous reports have been fabricated and circulated respecting the nature and quality of the articles which will hereafter be sold by the Southern Drug Company (Limited), Bournemouth: The directors of these associated companies declare the said scandalous reports to be absolutely without foundation, and will take such steps as they may be advised for the effectual punishment of any person or persons who shall fabricate or circulate any such reports respecting them.

BURY.

DR. BOWKER, druggist, &c., was a candidate for municipal honours last week. In the ward he contested there were four candidates for two seats. Dr. Bowker was returned at the head of the poll.

GUILDFORD.

MUNICIPAL ELECTION.—Mr. F. Wheeler, chemist, stands fourth on the list with 332 votes out of 1,745 voters, the highest on the poll reaching 904.

KINGSTON-ON-THAMES.

THE MUNICIPAL ELECTION.—The liveliest contest in this town on November 1 was in the Canbury Ward, where Mr. Alfred Higgs, chemist and druggist, came forward as a candidate in opposition to Mr. Gridley, the retiring member, and Mr. Chilvers, the nominee of the Ratepayers' Association. There was a great deal of rough play during the contest, and some summonses for assault are pending. When the result was declared, Mr. Higgs, it was found, had scored 306 votes, against 206 for Mr. Gridley and 163 for Mr. Chilvers.

LANCASTER.

IN the municipal contests of last week we observe amongst the names of the unsuccessful candidates that of Mr. Joseph Albright, retired chemist.

LIVERPOOL.

SCIENCE FEDERATION.—Federation of kindred societies is the latest development of the "monopoly" craze, and a suggestion for a Naturalists' Union for Lancashire is now engaging much attention here.

A SENSITIVE STIGMA.—Mr. J. H. A. Hicks writes to this month's *Research* (the new local science monthly), to state that, while examining some flowers of musk mimulus, he found stigmatic lobes highly sensitive to the touch. This sensitiveness was noticed if the lower lobe of the stigma was touched with a blade of grass or anything similar. When the pistil arrives at maturity the lips of the stigma divide; the upper one retains its position, lying close to the upper and inner side of the corolla; while the other projects out from it into the space at the entrance of the flower, so that an insect, alighting on the lower and most prominent part of the corolla, would, on entering the tube, strike its head against the lower and projecting lip of the stigma, which when touched immediately closes up to the other. Mr. Hicks believes that by this admirable arrangement the flower secures what pollen may have been unconsciously deposited upon it by the visiting insect.

ILLEGAL SALE OF METHYLATED SPIRIT OF WINE.—On Tuesday, Mr. William Frederick Bowden, chemist and druggist, was summoned before the County Magistrates' Court for selling methylated spirit at his shop in Smithdown Lane without a licence. Mr. Greer, supervisor of the Inland Revenue, stated that an officer visited the defendant's shop on September 5, and purchased a quantity of methylated spirit, for which he paid. The authorities, he said, were aware that Messrs. Bowden had a licence for other premises, but the Act did not permit anyone to carry on the business on other premises than those for which the licence was granted. Mr. Bowden admitted the offence, but said that on this particular day the manager of the shop was absent, and the young man who was acting for him did not know there was no licence for this shop, though they had one for the others. There was now no spirit at the shop to sell, but there happened to be some there that day, the remainder of a gallon taken into the shop about three years ago. Mr. Eaton (magistrates' clerk) thought the spirit would have evaporated since, but assumed that Mr. Greer did not wish, in the circumstances, to press for a heavy penalty; to which Mr. Greer replied that they had had some difficulty with this case, as they had to send samples to Somerset House. Mr. Bowden maintained that he placed no difficulty in their way, as he admitted the offence at once. Twenty shillings and costs was the penalty inflicted.

LIVERPOOL'S WEATHER AND TRADE.—The summer has gone, the harvest is ended, and extreme warmth and intense cold alternate. Perhaps the former portion of the preceding sentence should be written, The months in which summer generally appears have been got through, and the harvest moon has set. The remainder of the sentence holds good. It has been a bad summer for chemists, wholesale and retail. One "corporation" was started in Liverpool in the beginning of the summer for the manufacture, on an unusually large scale, of effervescing "citrate of magnesia," and the "health-giving" saline. As the preparations were of an average quality, and the price considerably below the average—namely, 6d. to 7d. per lb., according to quantity bought—many chemists bought very large amounts, and not a few are now discussing the keeping properties of effervescing preparations, and Mrs. Chemist is asked to permit her sitting-room to be invaded by large tins containing "citrate." The traveller for the "corporation" will, I am afraid, have uphill work of it next summer. The sponge trade has also been particularly quiet. One Greek gentleman, an importer of sponges, took a shop in one of our leading thoroughfares, at a rental of 300l. a year, and made a goodly show of sponge. After he was open for about a couple of months I chanced to make his acquaintance, and he told me that on the day I met him he had taken 2s. 11d., and on the previous day 7s. 9d. In the poorer neighbourhood from which he had removed he had been doing well, and he intended going back there. "Give me," said he, "the customer with the shawl round her head. She will come in for a shilling sponge, and be satisfied with shilling sponge; but your lady who drives up in her carriage will want a guinea sponge for sixpence." He has gone back to the shawl-covered customer. Every trader but the chemist seems to be glad of the visit of the Channel Fleet. Jolly tars always buy something when on shore. It was noticeable that in the particular thoroughfares which our sailors most frequent marking in "plain figures" was altogether dispensed with. One gentleman in the boot trade told me that pedal coverings went up in price from 25 to 50 per cent. Jack is considered fair game. Smelling-bottles, corn destroyers, tan and freckle removers, and the customary equipments for a stay at the *bord de mer*, have all proved in this year of grace veritable "drugs in the market."

MANCHESTER.

SIR HENRY ROSCOE, M.P., as we have already mentioned, takes a lively interest in the lads' clubs which have been established in Manchester. On Saturday night last he delivered to the lads of the Hulme Club an interesting little address on the subject of "Lucifer Matches."

MR. B. ROBINSON, chemist, distiller, and wine brewer, of Pendleton, was re-elected for the Seedley Ward without opposition. A requisition, signed by over 1,200 ratepayers

of all shades of politics and religion, was presented to Mr. Robinson and his colleague, Mr. Stephens. This was printed on a monster placard, occupying 20 square feet, and apparently frightened off any possible opponents.

LEWIS & Co. have to thank Mr. Gladstone for a good advertisement. A few days ago they sent the ex-premier a copy of the essays on the Manchester Ship Canal for which they recently offered prizes, and the result is a letter from Hawarden eulogising the enterprise of the Manchester people, and speaking very hopefully of the probable results of their great undertaking. The letter has, of course, gone the round of the newspapers.

MR. T. SWINDELLS, dispensing chemist, of 61 London Road, Manchester, was a candidate for the representation of St. Clement's Ward in the City Council, in opposition to Mr. J. H. Andrews, the retiring councillor. For many years Mr. Swindells has taken an active interest in the political and municipal life of the city; and as he threw a great amount of energy into the work of electioneering, his supporters were hopeful of success. But their hopes were not realised, the result of the poll being as follows:—Andrews, 830; Swindells, 615.

THE HOUSEHOLD STORES.—The annual meeting of the Household Stores Association (Limited), which does a considerable business in drugs, was held on Wednesday. In their report, which was read, the directors reported that the net profit earned by the association for the past year had been 2,603*l.* 12*s.* 4*d.*, which with the sum of 1,132*l.* 0*s.* 11½*d.* brought forward from last year, made a total of 3,735*l.* 12*s.* 5½*d.* to be dealt with. After making due allowance for depreciation, the directors recommended a dividend of 6 per cent., free of income tax, on the subscribed capital of the association. This, it was said, would absorb 1,302*l.* 14*s.* 5*d.*, and leave a balance of 1,263*l.* 12*s.* 3½*d.* to be carried forward. The report was adopted.

SOCIETY OF CHEMICAL INDUSTRY.—The Manchester section of the Society of Chemical Industry, which has at present, the secretary (Mr. J. Carter Bell) informs us, a membership of about 350, has this week set to work for the session 1888-9. On Tuesday night, with Dr. Schunck, the president, in the chair, the first of the monthly meetings was held in the rooms of the Chemical Club, Victoria Hotel; and to-night (Friday) a conversazione was to be held in the same place. The attendance at Tuesday night's meeting was the largest we remember to have seen for a long time. The business consisted of a paper by the president on a subject with which he is intimately acquainted, viz., the theory of dyeing, and an address by Mr. Herbert Fletcher, a member of the Town Council of Bolton, explanatory of the process he has adopted at his colliery for the prevention of the emission of smoke. An interesting discussion followed Mr. Fletcher's address. Most of the gentlemen who took part in it, including Mr. A. E. Fletcher, chief inspector under the Alkali Act, appeared to be of opinion that in the use of gaseous fuel will ultimately be found the solution of the smoke difficulty.

A CURE FOR HYDROPHOBIA.—Under the presidency of Mr. J. Carter Bell, public analyst for the county of Chester and the borough of Salford, Mr. Hibbert delivered, at the Manchester Town Hall on Tuesday night, a lecture on "The Science of Ferments, their varied phenomena, the laws by which they are governed, their universal presence in organic matter, and how they are made tributary to universal sanitation." He claimed for certain preserving and disinfecting fluids he has discovered that they are universal specifics for disinfecting and preserving all forms and species of organic matter, whether animal or vegetable, animate or inanimate. In regard to hydrophobia, he said it might be classed along with all the ferments above or below the normal standard which were attracted to, and formed a union with, his remedy by the chemical affinity of composition. His *modus operandi* was the depletion of caloric in excess, and the liberation of hydrophobia or other poisonous virus or gases which are eliminated from the system by the powerful affinity of composition or attraction of the virus to the remedy which environs, and is in contact with, the body. He cited two cases of hydrophobia, which he said were parallel in regard to the nature of the dog bites received. One case was treated by M. Pasteur, and the patient died; the other case was that of a boy, who was still in good health. A vote of thanks was accorded to the lecturer.

MANSFIELD.

METHYLATED SPIRITS OF NITRE.—At the Mansfield Petty Sessions on November 1, before Capt. Need, R.N., and Mr. W. Hollins, jun., Mr. J. J. Wharmby, wholesale and retail chemist, of Mansfield, was summoned at the instance of the Commissioners of Inland Revenue to recover a penalty of 100*l.* for selling sweet nitre which, on analysis, was found to contain methylated spirit. Mr. J. T. Squire prosecuted on behalf of the Commissioners of Inland Revenue, and Mr. G. H. Hibbert defended. Mr. Croome, of the firm of Messrs. Courtenay, Croome, Son & Finch, of London, watched the case on behalf of Messrs. Bush, Son & Co., of Walworth, London, from whom Mr. Wharmby obtained the spirits. Mr. Squire, in explaining the case for the prosecution, quoted section 130 of Acts 43 and 44 of Vict. 24, which forbids the use of methylated spirits in the preparation of any article which could be either consumed as a beverage or internally as a medicine. This, he said, was introduced into the Spirits Act not only for the purpose of protecting the revenue, but also, at the instigation of the Pharmaceutical Society of Great Britain, for the protection of the public, in seeing that they should have these medicines and drugs properly prepared with spirit which was palatable but not nauseous. Methylated spirit was rendered unpalatable by the addition to it of naphtha, which had been selected as the most nauseous thing the Commissioners could find for the purpose of mixing with proper duty-paid spirit, and mixtures of this kind were duty free. The facts of the case were that an officer of the Inland Revenue in the neighbourhood of Mansfield had reason to believe that methylated spirits were to be found in certain articles sold by Mr. Wharmby. He purchased one or two preparations, and on July 12 last, the date mentioned in the information, purchased at Mr. Wharmby's shop a small sample of sweet spirits of nitre, one sample of paregoric elixir, and also one of laudanum. He also purchased at some other shop of Mr. Wharmby's two other samples of laudanum, and at another shop, in which Mr. Wharmby was believed to have an interest, he purchased another sample of laudanum, so that he had six samples which he sent to the laboratory at Somerset House for analysis. They had been examined, and it seemed the spirits of nitre contained methylated spirit. The other samples which were examined were found to be free from it. The result of the analysis was communicated to Mr. Wharmby, and his explanation asked for. He replied that he purchased the article and sold it in exactly the same state. The Commissioners ordered an information to be laid for the recovery of the penalty. Upon that Mr. Hibbert, who appeared that day, addressed a letter to the Commissioners of Inland Revenue giving the same explanation, and pointed out, though he did not know he was prepared to make any point of it that day, that a sample had not been left with Mr. Wharmby. These proceedings were not taken under the Food and Drugs Act, which required that a sample should be left and that the trader should be informed that the article was required for analysis, but these proceedings were under the Excise Act, and these acts were not required under the Act. However that might be, Mr. Wharmby had informed him since he was in court that his client had analysed this sweet spirit of nitre, and was satisfied with the result of their analysis, so that there was not going to be any dispute about the facts. Mr. Squire read the letter of Mr. Hibbert, which stated that the spirit was sold as purchased by Mr. Wharmby from Messrs. Bush, Son & Co., of Walworth, London, for the usual market price, and as pure spirit, and he (Mr. Wharmby) had no knowledge to the contrary. On hearing of the matter, he at once wrote the wholesale firm, who replied that it was made from pure spirits of wine, and which they would guarantee. Continuing with his opening, Mr. Squire said that whether the methylated spirits got in on Mr. Wharmby's premises, or was there when he purchased it, he could not say, and he did not know whether Mr. Wharmby would be able to prove it; but before the bench listened to any appeal in mitigation of punishment, they ought to be satisfied that Mr. Wharmby did so obtain the spirit from Messrs. Bush, Son & Co., that it was sold by them in the same state as when they received it, and that nothing could by any possibility have happened to it while in their possession. If they were convinced, they had full power to mitigate the punishment to any sum they

might think proper, though under the old law they were limited to one-fourth. Mr. Whiskin, supervisor of Inland Revenue at Belper, proved the purchase of the drugs named, and Mr. C. H. Burge, analyst at the laboratory at Somerset House, testified to the results of his analyses. Mr. Hibbert, for the defence, said Mr. Wharmby was well known to all, and was an old resident in the district. He had lived at Mansfield Woodhouse something like twenty-three years, and been assistant-overseer for that period, also holding the position of clerk to the Local Board for something like thirteen years. He believed in the eyes of all who knew him he had a most irreproachable character. The case was very fairly put before the bench, and he wished to explain that his regret at no sample being left was not because he thought the proceedings were under the Food and Drugs Act, but Mr. Wharmby might have had it analysed, and it might have materially altered the action he took at the time. It was rather hard on Mr. Wharmby because he did not know, for the analysis taken since was from some procured elsewhere, and not from the bottle from which this was taken. He could not contradict the fact that some methylated spirit was contained, but his case for mitigation of the penalty was that while it was a very large penalty, it was nothing compared to the loss which Mr. Wharmby would sustain if the bench marked their feeling by a heavy penalty, so as to show, as it would, that he had some knowledge of it. Mr. Wharmby was not only a retail and wholesale chemist and druggist, but a large manufacturing chemist, and made a great number of articles, and he had been to great expense in this branch of the business. Mr. Hibbert drew attention to the fact that the other samples were found free from the spirit. He could not call Mr. and Mrs. Wharmby, but could call all the other inmates of the house to show that so far as Mr. Wharmby was concerned he purchased the sweet nitre of an eminent London firm, and paid the full price, naturally expecting to receive pure spirit, and it was guaranteed such in subsequent letters received from them. The sweet nitre was part of 36 gallons purchased in February, and Mr. Wharmby paid rather over the full market price. Mr. Wharmby kept no methylated spirit at all on his premises, although he did keep a preparation known as "finish," used for polishing; but it was kept in a distinct part of the premises, and it was impossible for any of it to get in the sweet nitre, and the latter was certainly never tampered with either by accident or design. Mr. Hibbert said he should like to read a letter from Messrs. Bush, Son & Co. Mr. Squire objected, unless it could be proved by Mr. Bush. Mr. Hibbert said it was as to the guarantee, but he did not press the point. Thomas Jennings, foreman to defendant, and Walter Wharmby, son of defendant, confirmed Mr. Hibbert's statements. Jennings said he remembered that in February last they purchased thirty-six gallons of sweet nitre from Messrs. Bush, Son & Co., for which they paid the full market price. The sweet nitre was first put in stoppered bottles kept in the third storey, and the shop bottles filled from these. They kept a preparation of "finish" in a cellar apart from where the sweet nitre was, and it was impossible for them to get mixed. To the best of his belief the sweet nitre was sold as they received it from Messrs. Bush. In cross-examination he said the quantity purchased would last them from February to July. It would be received at 850, and he had not found it necessary to reduce the gravity. They had obtained another supply of sweet nitre from Messrs. Bush, Son & Co. since and found it pure. They paid the same price for the second lot as the first. After private consultation of the magistrates Capt. Need said they had listened attentively to the evidence. They were satisfied that Mr. Wharmby did sell an impure article, and that was all they had to do with. Formerly they could only have reduced the penalty to a fourth of the maximum, and that would be their guide now, so that Mr. Wharmby would be mulcted in a penalty of 25%. Mr. Hibbert asked if the bench would give a recommendation to the Board of Inland Revenue, who had power to mitigate the fine to any extent. Capt. Need said they had considered the point, and were not disposed to make any further recommendation.

NEWPORT (MONMOUTHSHIRE).

THE NEW MAYOR.—Mr. Henry Faulkner, who has been elected mayor of this borough for the coming year, has been

for thirty-five years at the head of a prosperous business as a chemist and druggist in the town, and is 67 years of age. He was born at Oxford, and before going into business was a medical assistant. He especially values a handsome gold watch in his possession, on the inner cover of which is the following inscription:—"Presented by 700 workmen of the Sirhowy Ironworks to Henry Faulkner, assistant to N. Coats, Esq., surgeon, for constant attendance on them during the prevalence of cholera, 1849."

OLDHAM.

MR. JAMES ECKERSLEY, chemist, 35 Spring Street, was last week returned unopposed as the representative of Clarksfield Ward on the Oldham Town Council.

PETERBOROUGH.

DILAPIDATIONS.—In the county court on Wednesday John Sutton, retired builder, sued William Tomkinson Knight, chemist, for 40%, alleged to be the cost of certain repairs rendered necessary on premises which defendant had rented from plaintiff, which it was said had been let for storing dry goods only, but had been used for storing oil, some of which had leaked, necessitating a new stairs and a new floor. Defendant had paid into court 15%. A great deal of contradictory evidence was given as to the cost of the repairs necessary, but the jury ultimately found that 15% would amply cover it. The judge ruled that there had not been legal tender of 15%, and, therefore, gave judgment for plaintiff for 15%.

SOUTHPORT.

In the election of councillors for the East Ward of Southport last week, Mr. Benjamin Wilkinson, manufacturing chemist, had a "walk over," in consequence of the nomination paper of the candidate who opposed him having been found to be bad.

STARCROSS.

CARBOLIC-ACID POISONING.—An inquest was held here on November 3, respecting the death of a widow lady named Radcliffe. It transpired in evidence that the deceased had swallowed a quantity of carbolic acid, and the jury, while finding that this was the cause of death, were unable to determine whether the poison was accidentally or intentionally taken. Deceased's brother, who was present at the inquest, stated that he knew of nothing that should have led her to commit suicide. She was in receipt of a fair income and always seemed to be cheerful.

WORKSOP.

THE MIXTURE AND THE LOTION.—On November 3 a woman named Willey, who lives in East Gate, Worksop, took a dose of lotion in mistake for a mixture for neuralgia. She had been to Dr. Hebblethwaite at the Dispensary for treatment. He gave her a mixture and some lotion to rub on her face. These she set together on the drawers in the house, and on Saturday morning took up the wrong bottle and drank a dose. Dr. Hebblethwaite was hastily fetched, and with the assistance of Dr. Walker treatment was adopted which ultimately proved successful.

IRELAND.

DUBLIN.

NEW WHOLESALE FIRM FOR DUBLIN.—It is stated that a celebrated London house is making arrangements to open at an early date an extensive branch in this city.

MILK ADULTERATION.—The Recorder, sitting in the Sessions House on Tuesday, fined Michael Byrne, 14 Marrowbone Lane, 10% for diluting his milk with 50 per cent. of water. The inspector of food proved the offence and a former conviction. Mr. Byrne's only defence was that his cows were well fed, and he thought the milk too strong.

AN IRISH SCHOOL OF PHARMACY.—It is rumoured that

the Pharmaceutical Society intend opening a school of pharmacy, where the necessary hundred hours' laboratory instruction and lectures will be given at a fee about half that charged by the medical schools. This scheme, if carried out, would be indeed a boon to the student.

AMALGAMATION OF MEDICAL SCHOOLS.—A meeting of the night students of Dublin was held in the theatre of the Ledwick School of Medicine on Wednesday, the 31st ult., to protest against the discontinuance of night lectures under the amalgamation scheme. A committee of five gentlemen was appointed to call on the Fellows of the College and request them to aid the students in obtaining their rights.

AMBIGUOUS ANATOMY.—Scene: Pharmacy. Enter an elderly female to whose husband some of "Our Kill-Pain Liniment" has been supplied. Chemist: Well, Bridget, is Michael better? Mary: Deed he's not thin, dochter avic. I rubbed in yer medicine, but he got no better, so oi brought him to Vincint's this morning, and Dochter McArdle, the jewel, ses he has an abyss in his slumbein' verterbrin, near his spinal column.

MARGARINE AGAIN.—On Monday last, in the Green Street Courthouse, the Recorder reduced a fine of 5*l.* imposed a few days before by Mr. Woodlock on John Redmond, 74 Cork Street, to 5*s.*, the defendant having exposed for sale as butter the substance known as margarine. "The dear old Recorder" (as an evening paper styles him) seems to approve of enterprise in the way of substitution.

THE NIGHT BELL.—There is no city in Europe where the night bell is so much abused as in Dublin. An unfortunate assistant informed me a few days ago that he had been called down no less than seven times on the previous night, none of the customers having prescriptions. The reason of this is that no extra charge is made for night rings. Why are the chemists of Dublin not unanimous on this point, and fix a tariff of say 50 per cent. extra for night calls?

NEW REMEDY.—A chemist in the neighbourhood with a taste for antiquities recently adopted the old-fashioned "tie on" label in his pharmacy, in connection with which he "runs" a wine store. He had a prescription a few days ago for a dozen aperient draughts, and when despatching them he directed his assistant to send along with them half-a-dozen of his best "St. Julien" to the Rev. Father O'Flaherty, who lives on the same terrace as the patient. The assistant managed to mix up the fly labels, so that the wine was delivered to the sick man labelled "One to be taken when the bowels are confined," while Father O'Flaherty was rather surprised at receiving a dozen bottles of nasty smelling compound "with Mr. Maguire's compliments."

The North of Ireland Chemists and Druggists' Association have reprinted Mr. Brunker's astonishing "private" circular which we mentioned last week, and have sent it to the whole trade asking for an expression of opinion as to the Bill. Mr. Brunker, it will be remembered, asserts "that the safety of the public is at stake, and that the only opposition which has developed comes from a few wholesale druggists who are directly interested in an indefinite continuation of the present state of things." The North of Ireland Association on the other hand declares that "the measure is one of the most thoroughly protective character, and is not demanded for the public safety nor at the requirements of the public. If the public safety had been menaced by chemists and druggists dealing in poisons, instances of mistakes should have been produced before the Committee of the House of Lords, whereas the reverse was the case, and the statement in evidence that the majority of mistakes, or indeed all, had been made in pharmaceutical establishments was never contradicted. The proposed measure seeks to abolish the trade of chemists and druggists, whose position was fully shadowed forth in the Act of 1875, but was ignored by the Pharmaceutical Society, contrary to the spirit of the Act."

SCOTLAND.

DUNDEE.

"SEQUAH" SPEAKS OF HIMSELF.—When Hartley, the great American medicine-man, left Aberdeen, it was only a two or three hours' journey for him to travel south to Dundee. In this direction he did travel, taking up his position in the

cattle market, which is next door to the prison. Here "Sequah" has been doing a roaring trade during the past few weeks. He is lucky. The jute trade has quite recently shown remarkable improvement; the jute lords are coining money, and their employes are having a small share of this. So has "Sequah"; and accordingly he has taken up his residence in Airlie Place, where several of the leading medical men sport their door-plates. There a local interviewer found him "a fine-looking man of nearly 40, but looks younger. He is tallish and slimly built, but looks strong and vigorous, and his smooth-shaven face is clean cut, and has the stamp of high intelligence. His eyes, which are large and lustrous, add to the intellectual aspect of his countenance." Asked a little about himself, Mr. Hartley stated that he had five times travelled over the American continent, from Maine to California, then sold out, and took a farm in Kincardine, co. Bruce, Canada, which he still has. Then he "speculated in oil" until he had to take to selling the medicine again. California, the only part of the United States that he had by the deed of sale reserved to himself, was first attacked. Thence he proceeded to the Sandwich Islands, where he drew a tooth for a royal princess, and found a lot of rheumatism which just suited the "Sequah" remedies. Speaking of these, Mr. Hartley told the reporter that the "Prairie Flower" is a "North American production, a mineral water combined with botanic matter." He learnt the secret when he was among the North American Indians, who use it with marvellous success. Asked where he had found his most difficult and successful cases, the great medicine-man guardedly replied:—"It is according to the number of people who take the medicine that I receive the verdict of good or bad. In every part of the world it is the same. If I do an immense business, I have an immense return of cures; if I do only a medium business, I have only a medium return." Then he told the newspaper man that it was his intention to return to this town for two weeks, when he hoped to do more business. He could, he said, generally sell more medicine on a second visit than on a first. The word "Sequah," he added, is the Indian title for the great spirit of healing—Poportheen; but he did not tell the interviewer that the characteristics of "Sequah's" oil bear a wonderful resemblance to natural camphor oil.

EDINBURGH.

MESSRS. RAIMES & CO.'S CRICKET CLUB held their first annual supper on November 2 at the Peacock Hotel, Newhaven. Mr. John Davies, captain, presided, and Mr. W. Richardson, vice-captain, discharged the duties of croupier. In replying to the toast of "The Raimes & Co. C. C.," the captain said luck had not on all occasions followed in their train, but their success last year was an improvement on that of past seasons. Mr. J. Macdonald, secretary, and Mr. George Brown, treasurer, read their reports, which were considered satisfactory. Mr. Pellow at the piano and Mr. Symington on the violin were applauded. A vote of thanks was passed to the hon. president, Richard Raimes, Esq., for his liberality in placing a park at their disposal.

BRUSSELS EXHIBITION.

WE have already given a list of diplomas of honour and gold medals awarded to British exhibitors of drugs, medicines, &c. The following awards of silver and bronze medals have now to be added:—

Class 11.—Hygiene, medicine, &c.: Godfrey & Cook, London, silver medal.

Class 34.—Chemistry: John Bond, London, silver medal; F. S. Cleaver & Sons, London, silver medal; Crown Perfumery Company, London, silver medal; O'Brien, Dublin, silver medal; Puckeridge & Nephew, London, silver medal; Hydroleine Company, London, bronze medal; Sardou & Co., London, bronze medal.

NOT CHEMICAL.—A journal devoted to the building trade has been wrestling with a chemical problem, and produces among other things the following new formula:—Lime (C. A. O.), water (H. 20), calcic hydrate (Ca.H 202).

Pharmaceutical Society of Great Britain.

COUNCIL MEETING.

A MEETING was held on Wednesday at the usual hour. Mr. Michael Carteghe, president, in the chair, and all the rest of the members, except Mr. Southall, were present. The minutes having been confirmed, a letter was read from Mr. H. B. Baildon acknowledging the vote of thanks which was passed at the last meeting. Thereafter a number of persons who passed examinations last month were advanced in their position on the Society's roll, and others were elected or restored.

THE REGISTER.

There was one restoration to this, viz., Mr. James Johnston Taylor, of Manchester; and one addition, Mr. George Smith, of 2 Portland Street, Taunton, who had made the required declaration and paid the usual fee. Mr. Bremridge added that he had made inquiries regarding Mr. Smith, and had satisfied himself that the declaration was correct.

THE VACANCY FILLED.

At this stage the PRESIDENT intimated the appointment of Mr. William Gilmour, of Edinburgh, as the Chairman of the Executive, and at the same time asked our representative to withdraw while the election of a member of Council was considered. The Council remained in committee for about twenty minutes, and, on resuming,

The PRESIDENT moved that Mr. James Watt, of Haddington, be elected to the vacancy created by the retirement of Mr. Baildon. The President added that Mr. Watt had taken an active interest in the affairs of the Society for several years, and had been vice-chairman of the Executive of the North British Branch for two years, so that he had some acquaintance with the work of the Society. He was sure that with Mr. Watt residing so close to Edinburgh, and with the assistance of the Executive, that the Society's work in Scotland would be carried out in a satisfactory manner. It was, they all knew, desirable to have some one from Scotland whom they could consult regarding Scotch affairs, and although Mr. Watt had once said that he did not have time to act as a member of the Council, he learnt from his friend the vice-president that that difficulty had been overcome.

The VICE-PRESIDENT said that on his recent visit to the North he had learnt both from friends in Edinburgh and Glasgow that Mr. Watt was an acceptable man for the position. He had had an interview with him. Mr. Watt was willing to act, and he (the speaker) believed that in him they would have an able representative.

The resolution was unanimously agreed to, as was also the addition of Mr. Watt's name to the Benevolent Fund and Parliamentary Committees.

FINANCE.

The report of the Finance Committee contained reference to routine matters only. The secretary enumerated the balances of last month, the receipts during the month, and the amount (1,058*l.* 7*s.* 3*d.*) now recommended to be paid from the Society's own funds. The receipts during the month on behalf of the Benevolent Fund amounted to 215*l.* 3*s.* 4*d.*, exclusive of a donation of 5*l.* 5*s.*

The PRESIDENT, in moving the adoption of the report, found little to comment upon, but he remarked that the sale of stock authorised at last meeting resulted in an addition of 1,460*l.* 12*s.* to the cash account of the Society, and the special reminders which the secretary issues at this time to the supporters of the Benevolent Fund had brought in 238*l.* (Hear, hear.) He hoped that the donation account would grow by additions to it from those who were successful in business. Regarding the General Fund, he also made the comment that the other day the treasurer was alarmed at the low state of the banking account, and feared that he would not be able to meet certain liabilities, but the receipt of a cheque for over 1,000*l.* from Messrs. Churchill had relieved them from any anxiety on that point.

The report was adopted.

BENEVOLENT FUND.

The committee had considered eleven applications for relief on the previous evening. In two of these they recommended grants of 5*l.* each, in three grants of 10*l.* each, and in a sixth a grant of 15*l.* Five cases were not entertained. One other application came before the committee, which had been refused relief on a previous occasion. Mr. T. C. W. Martin wrote to the secretary, suggesting that London should be systematically canvassed for subscriptions. The consideration of this proposal was deferred.

The VICE-PRESIDENT, in his speech moving the adoption of the report, referred to this proposal of Mr. Martin's, and from the tone of his remarks it appeared that the committee might give it favourable consideration. Some conversation followed regarding it, which was started by Major Richardson asking the President how long ago it was since London was canvassed in the same way as the country is. "Some time ago," was the vague reply; but Mr. Allen added that the matter had been considered a year ago by the committee, and, apart from that, some of the districts had been canvassed. The difficulty, it seems from the discussion, is to divide the metropolis into districts. Mr. Richardson threw out a suggestion that the country should be divided on the plan of the County Councils. The matter then dropped, but another benevolent subject was immediately set agoing by Mr. Schacht, which resulted in a long and interesting discussion, taken, however, *in camera*.

LIBRARY, MUSEUM, LABORATORY, AND HOUSE.

The report of this committee followed. The librarian reported on his department and regarding the meeting of the Librarians' Association in Glasgow, which he attended. The curator reported on the attendance at the museums and on the donations which he had received. It was recommended to have a new edition (1,000 copies) of the library catalogue printed, and the purchase of ten more microscopes for Professor Green was advised.

The PRESIDENT said that the practical botany class had been too great a success. Instead of a portion of the class attending, as Professor Green had expected, there were fifty students at it—practically the whole of the class—and as this class was really a labour of love to the Professor, the committee felt that it was the least the Council could do to provide the necessary instruments. In reply to a question, the President stated that the class fees were expended on materials and demonstrators. (Approved.)

GENERAL PURPOSES COMMITTEE.

The report of this committee was taken in private and passed.

After one or two unimportant matters had been dealt with the President called upon the secretary to read

A LETTER FROM THE PRIVY COUNCIL.

There were really two letters, one acknowledging receipt of the resolution passed by the Council declaring that carbolic acid should be added to the second part of the schedule of poisons. In the next letter the deputy-clerk of the Privy Council stated, on behalf of the Lord-President, that his attention had previously been directed to the matter, and that it would receive his further consideration.

The only comment made on this communication was by Dr. Symes, who said that the Liverpool Chemists' Association had resolved to petition the Privy Council in support of the Pharmaceutical Council's recommendation.

OCTOBER EXAMINATIONS.

The secretary reported as follows:—

	Candidates	Passed	Failed
Preliminary	269	137	121
London:—			
Minor	162	81	80
Major	18	13	5
Edinburgh:—			
Minor	47	25	22
Major	1	0	1

Twenty-one certificates had been accepted in lieu of the Preliminary examination.

The PRESIDENT recalled to mind that a few months back the Council had resolved, in common with the General Medical Council and other bodies, to accept the leaving certificates of the "Scotch Education Board" in lieu of the Preliminary examination. The certificates were granted to pupils of the higher schools on passing an examination which not only included the subjects of the Society's Preliminary, but also such subjects as French and German. The first examination under the scheme had recently been conducted, and the questions had been laid before the examining boards in London and Edinburgh, who were highly satisfied with them. He now formally moved that the certificates should be accepted by the Society, and this was approved.

Following this another examination matter was considered in committee, then the way was cleared for Dr. Symes's motion in regard to

POISONS REGULATIONS.

The PRESIDENT, in calling upon Dr. Symes, said that it would be noticed from the agenda paper that the motion now to be submitted was slightly different verbally from that which Dr. Symes had given notice of, but it was the same in purport. The motion as now submitted was—

That the Council recommends the members of the Society to adopt and submit to the Privy Council for approval regulations for keeping, selling, and dispensing poisons under the provisions of the Pharmacy Act, 1838.

Dr. SYMES: It is with a sense of serious responsibility that I rise to move this resolution. When I last mouth—

Mr. GOSTLING (interrupting): Should not this be taken in committee, sir?

Mr. BUTT: I think so too. (Hear, hear.)

Mr. EVANS: I decidedly object to that.

The PRESIDENT: Well, as you choose, but put it as a motion.

Mr. GOSTLING moved that the Council go into committee, and Mr. Evans met the motion with a direct amendment.

Mr. SCHACHT felt that something might be said on the motion to go into committee.

The PRESIDENT, however, ruled that a vote should be taken at once. He accordingly asked the members to vote, and this resulted as follows:—

To go into committee (seven)—Messrs. Allen, Atkins, Butt, Gostling, Hills, Martin, and Newsholme.

Against (two)—Messrs. Evans and Symes.

The following did not vote:—Messrs. Bottle, Carteighe, Cross, Greenish, Hampson, Nichol, Richardson, Robbins, Savage, and Schacht.

Immediately on the result being declared Mr. Evans left the room, and Dr. Symes stated that he distinctly refused to discuss a matter of this kind in private, and, so far as he was concerned, the matter might drop.

A discussion ensued in the presence of reporters, but after this had gone on for some time the President thought it desirable that they should retire. In about half an hour the Council resumed in order that the President might inform our representative that the motion had fallen to the ground. This was all the business.

SOCIETY OF CHEMICAL INDUSTRY.

THE London section resumed its meetings at the Chemical Society's Rooms, Burlington House, W., on Monday evening, at 8 o'clock. Mr. David Howard, chairman of the section, presided, and though the attendance was small at first, ultimately over forty members occupied the benches. After the minutes had been confirmed,

The CHAIRMAN said that it was not his intention to make any formal opening address, but he desired to mention a matter which had come under the notice of the committee—viz., that there were many subjects which the section could discuss without the preliminary of a written paper. Such a subject—the Rivers Pollution Bill—had once been profitably discussed by the section, and if any member thought that the same could be done regarding other matters during the session, the secretary should be communicated with, and

the committee would endeavour to make arrangements. He then called upon Mr. John Heron to read a note on

A NEW FORM OF POLARIMETER.

This is specially intended for the use of brewers, and is the invention of Mr. Thomas Baily. It is an instrument of the half-shadow type, is practically of the same construction as the "Laurent," but instead of the half-way plate being an expensive plate of quartz, the same optical effect is produced by a very thin disc of mica, which the inventor has found to work very satisfactorily. Mr. Heron described how the polarimeter is used, and stated that it is well adapted for the observation of the specific rotatory power of essential oils, tartaric acid, &c.

In the discussion which followed the CHAIRMAN said that Mr. Heron had given a valuable piece of information to those who work with the polarimeter. He sketched in an interesting and pleasant manner the difficulties which attended the use of the earlier forms of the polarimeter, and advocated a more extended use of the improved instrument, especially for the examination of the organic alkaloids. He would not say that in that department there were not difficulties; but the rotation of the polarised ray was so remarkable a principle, capable of affording such accurate results to the observer, and one of the most valuable indications of purity or otherwise, that they could not afford to dispense with it. In reply to Mr. Hooper and the Chairman, Mr. Heron stated that the instrument cost about 7 or 8 guineas. The circle was originally graduated to 2°, but for brewing purposes he had got it graduated to tenths of a degree, yet the instrument could be made to read smaller divisions. The Chairman thought "tenths" was good reading. He was sceptical about hundredths.

The next paper read was on

THE COMPARATIVE ANTISEPTIC VALUES OF VARIOUS CHEMICAL SUBSTANCES.—Part II.

By C. T. Kingzett, F.I.C., F.C.S.

It was pointed out that in all probability the antiseptic effects of various chemical agents upon micro-organic life are more or less general, in the sense that as they act on one micro-organism so they do on others, either by killing them or by so altering the composition of the medium that it becomes henceforth incapable of sustaining life or development. This view is strengthened by the consideration that the processes of chemical change which are set up by micro-organisms are all of the same order, and two chemical acts only are involved—viz., hydration and oxidation, the latter process being probably in all cases secondary to the primary one of hydrolysis. It is, he considered, by chemical hydrolysis as induced by micro-organisms that toxic products like sepsin, tyrotoxin, ptomaines, &c., are elaborated, and they constitute real infectants. This view being now generally accepted, the author claimed that his results were really comparable in character and reliable for guidance in matters of public health and medical practice.

Three series of experiments were described, the first being a complete repetition of those formerly communicated to the Society concerning the antiseptic values of chlorides, nitrates, and sulphates, in respect of extract of beef containing a little under 2 per cent. of total solid constituents. The results confirmed the previous ones, and it was shown that these compounds of the alkali metals have little value as antiseptics; those of the alkaline earths are not much better, while those of manganese, zinc, tin, iron, lead, and aluminium have a decided value, and the compounds of copper and mercury are the best so far as they are applicable. Perchloride of mercury was placed at the head of the list.

The second series of experiments included trials with selected chlorides, nitrates, sulphates, and "salufer," "sanitas," and "bactericide." A saturated solution of salufer ranked equally with the solutions of sulphate of aluminium and chlorides of lead and tin. Mixtures containing 10 per cent. and upwards of ordinary "sanitas" fluid remained intact collaterally with the test mixture containing "bactericide" and the chlorides and sulphates of copper and mercury, the author, therefore, insisted upon the great value of "sanitas" as a disinfectant for popular and medical use, being wholly innocuous and thoroughly reliable, 10 cc. being equal in antiseptic effect to 5 cc. of a 5-per-cent.

solution of corrosive sublimate. Incidentally, he called attention to one deficiency of perchloride of mercury as a disinfectant—viz, its want of "power of oxidation." While it kills all micro-organisms—germs and spores—it has no effect upon the toxic products which they elaborate, and which are frequently, therefore, associated with them; and it was this view that led Mr. Kingzett to introduce his "bactericides"—a series of preparations containing definite percentages of substances of ascertained antiseptic value, as determined by himself, dissolved in a strong solution of peroxide of hydrogen.

The third series of experiments related to some of these compound solutions and other mixtures which had been tested in course of their preparation. Some of the results were of great interest. It was observed, for example, that borax when neutralised with boric acid is not such a good antiseptic as ordinary borax, although boric acid itself is superior to that substance. Chloroform, although antiseptic in character, is not so good as lately represented in some medical papers. Chloral has a pronounced antiseptic value, so has the bisulphate of potassium. Sulphate of quinine, dissolved in a slight excess of sulphuric acid, acts much more potently as an antiseptic than the disulphate of quinine, a result which Mr. Kingzett attributed to the free acid—indeed, the influence of the acid reaction is very evident, and acetic, oxalic, sulpho-phenic, and hydrochloric acids have all powerful antiseptic properties. Sodium henzoate, ether, caustic potash, and chlorate of potassium exhibited comparatively little antiseptic value.

In reviewing the whole results, and after indicating the probable value of many of these substances and compounds in medicine, the author called attention to the usefulness of the general results, remarking that when a so-called new disinfectant is brought out, it will be only necessary to ascertain its composition, and then refer to his tables to determine its approximate value. For instance, he adduced kamphorkalk, a mixture of the chlorides of sodium and calcium with a small proportion of camphor, and said its antiseptic value could not exceed in any material sense that of its constituent saline bodies, which, as judged by his results, was comparatively insignificant. The author promised to contribute a further paper respecting his "bactericides" later on. We may add for the information of our readers that all the new combinations are patented.

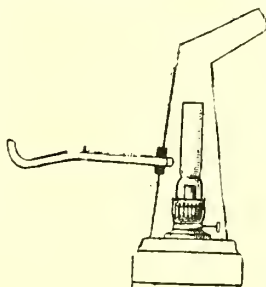
An interesting discussion followed. The chairman considered that the paper was one of great value, for it was a statement of facts. There could be no two opinions regarding the value of studies of this kind; it was a subject which required accurate and very thorough study, and the results were of great benefit. He called upon Dr. Percy Frankland, who, in response, said that the subject of antiseptics and disinfectants was a very important one. There were some disinfectants—such as the chlorides—which merely retarded the growth of micro organisms, but did not destroy them. The weak part of Mr. Kingzett's communication was, he thought, that this matter was not more particularly studied. He would have such investigations carried on with specific micro-organisms, or, in other words, with pure cultures, such as the anthrax bacillus. Then there was also to be considered the condition of the culture solution, whether neutral or otherwise, acid liquids being almost incapable of putrefaction. In regard to the use of bichloride of mercury as a surgical antiseptic, he pointed out that the effect of albumen in rendering the salt insoluble was a serious drawback to its use, but that had been overcome by the addition of an acid—such as tartaric—which ensured complete antiseptic action. He disputed Mr. Kingzett's theory of putrefaction and fermentation, reminding him that the fermentation process, whereby nitric acid was reduced to nitrous acid, and even to ammonia, was an example of reduction. After some very involved remarks by a member on the use of solid volatile bodies as disinfectants, Mr. Roberts asked Mr. Kingzett why he had not experimented with sulphites and sulphurous acid, and also with salicylic acid. Mr. Thomson had a similar question to ask regarding biniodide of mercury, and enlarged upon the great antiseptic power of that salt as determined by Dr. Sims Woodhead. A representative of the Kreochyle Company, who declared himself to be merely an amateur chemist, described the

great difficulties which he had experienced in keeping kreochyle, but at last he had succeeded beyond his expectations with Barff's Boroglyceride. Lately, however, he had discovered a substance—a preparation of borax—which was even more powerful than the boroglyceride. He submitted specimens of this substance, and the quiet way in which the new preservative body was introduced to public notice created considerable amusement.

Then Mr. Kingzett replied to his critics. He admitted that such experiments as Dr. Frankland wished him to take would be interesting—even valuable; but there was just one little difficulty, viz, that life was too short for one individual to undertake the work. Were such experiments required, however, to demonstrate what was wanted? He thought not. They wanted to stop putrefaction, to destroy the products of putrefaction, and when they found that certain things did that effectually, it really did not matter whether the organisms were killed, or their growth merely retarded. He added, however, that though they might not be killed outright, they were left in a condition in which they were bound to die very soon. He showed that Klein and Burdon Sanderson supported the views which he advanced, and, replying to his other critics, said that as Mr. Roberts was commercially interested in sulphites and sulphurous acid, he might safely leave these in his hands. Mr. Thomson was the patentee of an antiseptic soap containing biniodide of mercury, and that he would leave in his hands. (Laughter.)

A NEW MICROSCOPE ACCESSORY.

Mr. Thomas Christy, F.L.S., on the invitation of the Chairman, described a new microscope accessory which was on the table. He said that at the exhibition held at Cologne on the occasion of the recent annual meeting of German scientists in that city, this lamp for use in microscopical observations was exhibited, which combined in a high degree the advantages of usefulness and simplicity. The apparatus



consists of an ordinary petroleum lamp surrounded by a darkened tin case or chimney, into which, by means of a cork, a solid bent glass rod is tightly fitted. In accordance with the law of total reflection, the glass rod serves as a conductor for the light, which is thrown out in its entirety from the section at the end. If the stage of the microscope is placed over the section of the rod the object under examination is surrounded with a powerful light. The light conducted through an ordinary glass rod is, of course, yellow, which might cause some trouble in bacteriological investigations, but a monochromatic light might easily be produced by using coloured glass rods.

Mr. Christy added that since his return from Cologne he had made inquiries regarding the use of glass rods for illuminating purposes, and had found that a laryngologist had five years ago patented a similar instrument for illuminating the throat; but the introduction of the electric light had induced the patentee to abandon his claim, so that there was no restriction to the use of this method of illumination. He added that an ordinary candle or a gas-jet gives as good a light as an oil lamp, and that in the Ecole de Médecin, Paris, as many as four of the rods are placed in one jacket, so as to serve four microscopes.

Mr. Christy's exhibit created great interest, and after the meeting it was closely inspected by the members.

THE STIMULANTS OF THE FUTURE.—Time, 1920; place, Delmonico's.—First lady of fashion: Come in and have something to drink. They enter.

Waiter: Que faut-il servir à ces dames?

First lady of fashion: Give me a chloral cocktail.

Second ditto: I'll take a morphine and ice.

Third ditto: I guess I will have a hasheesh sour.

Fourth ditto: And I will try a cantharides sangaree—strong and hot.

FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

PASTEUR'S INSTITUTE will be inaugurated with due ceremony on Wednesday, November 14. So it appears from an invitation sent by him, on last Monday, to his brother Academicians. Admission cards may be obtained from M. Pingard, but a limited number only will be issued.

PRESCRIPTIONS IN FRENCH are to be no longer tolerated in Alsace-Lorraine. All medical practitioners have received official warning that henceforth all their prescriptions must be written either in German or in Latin. It is to be hoped they will not be fined for grammatical mistakes.

TO DETECT TRICHINA.—Dr. Cloré, a Spanish practitioner, recommends to place thin slices of the suspected meat in a test-tube with pepsine, water and muriatic acid. After a few hours' digestion in a warm place the parasite will become so loose and prominent as to be easily picked out and identified under the microscope.

SMALL PREHISTORIC RACE NEAR NICE.—M. E. Rivière, at the last meeting of the Academy of Sciences, presented a note on some excavations by him effected in five caves at Escagnolles, in the Nice district. From the animal bones and prehistoric potteries, tools and other remains there dug up, the caves prove to belong to the neolithic period, and were the abode of a remarkably small race of men.

PEPTONISED POTATOES.—If reports from secular sources are to be believed some dissatisfaction is felt in military circles with the dietetic in question. The army supply department have, it appears, large quantities of peptonised potatoes in store, that were expected to keep for at least two years; and now, after barely more than one year's storage, they begin to show signs of an early decay. The stuff is in the shape of crackers or biscuits weighing 5 oz. each, and containing 3 drachms of peptone.

SUICIDE BY POISON.—A young man named Lefavre, the son of a former French consul at New York, last week committed suicide at Versailles with cyanide of potassium. Deceased was serving out his time as a private in the third Cuirassiers, and obtained the poison from a friend employed by M. Bourdier, a dealer in chemicals. The pretext given was that he wanted the cyanide for retouching photographs. Young Lefavre, who was very hot-headed, is supposed to have killed himself for the trifling reason that he had unjustly been punished with two days in the *salle de police* (guard-room).

AN INTERNATIONAL MEDICAL LANGUAGE.—On motion of Dr. Ad. Nicolas, the Paris Society of Practical Medicine have adopted a resolution declaring the association to favour the American physiological (philological?) society's project, and to insist upon the necessity of admitting a large representation of the medical profession to the proposed international language Congress. The coming language would be a modified Volapuk, according to Dr. Nicolas's notions, in which all the proceedings of international meetings could be recorded. "True," he says, "our children would be obliged to learn a new language, but they would be spared the trouble of learning the six or seven others now necessary."

DANGERS OF THE BORDEAUX VINE WASH.—M. A. Raynaud, a pharmacist at Castres (Tarn) has observed a poisoning accident caused by eating string beans grown among vines. In the southern departments it is customary, in order to utilise every inch of a fertile soil, to plant dwarf beans between the vine-stocks. As mildew appeared, the vineyard in question was treated with the usual mixture of blue copperas and slaked lime diluted with water, and the beans got a share of the sprinkling. Experience has proved that the wine afterwards produced contains no copper. But M. Raynaud finds the wash adheres so strongly to the bean pods as to stand ordinary cleansing, and to be removed only by vinegar and water. In the case alluded to, a woman and her children were very sick with colics and vomitings after eating the beans, while the husband who had none was unaffected. As, besides, cupric oxide could easily be detected on the pods, there can be no doubt as to the cause of the accident, which luckily did not prove fatal.

PATENTS AT THE COMING PARIS EXHIBITION.—By decree signed on October 30, President Carnot has approved and promulgated a law enacted by the two Houses, whereby some provisions of the general patent law will be suspended in favour of the expected exhibitors. An outline of the Bill, as it passed the Senate, was given in THE CHEMIST AND DRUGGIST of July 14, page 36, but the usual Parliamentary fortunes have sufficiently altered its shape to render a revised edition useful. The provisions of the law, as it now stands, are substantially as follows:—(1) Articles patented in France, but manufactured abroad, may be exhibited by the patentees when allowed by the admission committee, and will not thereby be liable to forfeiture. (2) Said articles shall be re-exported within three months after the official close of the exhibition, or they may be forfeited. (3) Persons holding French patents who will exhibit objects or articles similar to those by them patented, shall be considered to have brought into public use their discovery or invention in France from the time of the official opening. The forfeiting clause of the patent law of July 5, 1884, shall be suspended in their favour, and its delay run on again only from the official closing date. (4) Objects exhibited for which a patent or copyright may have been taken or registered in France, and which will be alleged to be counterfeit, shall not be liable to seizure inside the buildings, except under description. Objects exhibited by foreigners shall not be liable to seizure either inside or outside the buildings, unless the seizure be protected in the country to which the seizure belongs. Nevertheless such objects shall not be sold in France, but must be re-exported within three months from the official date of closing the exhibition.

PARIS PHARMACEUTICAL SOCIETY.

THE regular monthly meeting was held on November 7 in the usual place, the fine "Salle des Actes," where a good fire proved quite acceptable to all present.

ANTIPIRYN AND ANALGESIN.

M. Julliard related some comparative experiments he had made with analgesin and antipyrin, the two rival products. He had noticed some difference in their colour reactions with nitric, sulphuric, and hydrochloric acids; also with potassium bichromate as a precipitant; besides, the smell on heating the two substances was not quite the same. Professor Bouchardat remarked that the colour reactions mentioned were quite variable and obtainable with many organic substances, so they signify but little.

M. Petit made an answer more to the point. He said that, like antipyrin, analgesin may contain traces of foreign substances, their presence may affect colour reagents, but therapeutically it is of no consequence. Analgesin is crystallised from acetic ether, while antipyrin is, for good reasons, thought to be crystallised from benzene, an objectionable but cheap menstruum now and then recognisable in the crystals. Otherwise the two substances are chemically identical; both antipyrin and analgesin have now been used too extensively side by side to admit of any doubt. "And," said M. Petit, "if my fellow-pharmacists wish to see the process in actual operation, they are welcome to have a look at it in my place, where it is under way, and not on a very small scale either."

On being asked, after the sitting, about his lawsuit with the Aniline Company claiming patent rights, M. Petit replied smilingly that the case was following the usual course; and it must be confessed he has not grown thin, and shows no signs of anxiety as to the results of the litigation.

M. Leidié made an interesting communication on the

RHODIUM COMPOUNDS,

at the same time presenting a number of specimens prepared by himself, and analysed quantitatively, to ascertain their composition. His processes and theoretical deductions somewhat differ from previous experimenters. Suffice it to say for the present that M. Leidié thinks, apparently with good reason, that rhodium should be classified with chromium, aluminium, and iron.

GUM ARABIC.

M. Petit called attention to the numerous and strange varieties of gum now to be found in the market. In appear-

ance they will pass and do sell readily for gum arabic or gum senegal, and, indeed, they answer for most purposes. But when the classic tests are applied to them they are quite bewildering. Alcohol, for instance, will not precipitate them when added in the usual proportion, and ferric salts will fail in many cases to produce the characteristic coagulation. Hence assays of preparations containing gum have become liable to suspicion; no analyst would like now to declare for certain that a specimen of gum syrup, for example, does not contain the quantity of gum it should. Gums reaching our market at present have so strange a chemical behaviour, that new investigations on the subject are quite necessary.

M. Marty having inquired whether the ferric salt employed as reagent was not acid, it was stated in reply that perfectly neutral ferric chloride had been used, and found often to fail to coagulate solutions containing as much as ten per cent. and more of gum. M. Bourguelot added that he had of late examined specimens of gum with the polariscope, and noticed their refractive power was most variable and often quite different from what we were accustomed to find it. Another member suggested there was perhaps some German adulteration at the bottom of all this. But Prof. Bouchardat said the term gum is at best very vague, is applied indifferently to various substances, and now-a-days when we buy "gum" we hardly know exactly what we are getting—which sentiment seemed to agree with the general feeling after listening to the discussion.

DISPENSING CHARGES IN GERMANY.

THE discussion which has been going on with regard to dispensing charges in your columns, writes our Berlin correspondent, is one of considerable interest. Looked at casually, it is not at all a matter for surprise that where no universally recognised standards exist, and where the spirit of competition is developed to so extreme a degree as in England, there should be evidenced a wide diversity of opinion as to the just price which can or should be charged for putting up prescriptions. Under the circumstances it may not be inopportune to give a sketch of the manner in which this subject is dealt with in Germany, where the price which may be charged for every drug or compounded medicine is limited by official regulations.

At the beginning of every year a kind of "price tariff" is published by the Government, which exhibits in detail not only, as already cited, the maximum charge for every drug and chemical, but also the same limit with regard to the various manipulations used in dispensing. The prices for bottles and packages of all kinds are also included. Every prescription has therefore its own unalterable value, and the price charged for dispensing it has to be marked on it in plain figures. It must not be supposed that the price tariff affects the ordinary retail trade; in this department the standard of selling values is, on the whole, somewhat lower.

The official tariff is, as you may suppose, not often departed from in the only direction legal—that, namely, of charging below its indicated prices. This, however, is sometimes done, a discount of from 10 to 25 per cent. being allowed to benevolent institutions, hospitals, charities, and so forth. Variations in the tariff may be met with in different states of the empire, but in the whole of Prussia, of Bavaria, or of Saxony, a prescription will be filled at one uniform price in every dispensary of every town. One effect of this Governmental regulation is seen in the fact that there can be no inducement for the public in any town or city to flock to the pharmacy of a certain member of the profession because he has a reputation for dispensing at low prices, and consequently the prescriptions written in any such city, town, or district are pretty equally divided among the several pharmacists, according to the situation of their "apothekes." The tariff is also of general interest, as the outcome of very minute and careful calculations made by competent professional and commercial experts, who have to keep in mind the necessity both of securing to the chemist a sufficient profit, and also of protecting the public against overcharge. Consequently the figures may be regarded as a reliable approximation to an ideal tariff of dispensing prices.

In order to facilitate the ready calculation of the value of

a certain medicine, the various drugs and chemicals are arranged in alphabetical order in one column, and the prices of each on the same line in another. Any new remedies which are introduced into medicine between the intervals at which the tariffs are issued are valued by comparison with the listed article which approximates most nearly to the new agent in cost price. The charges which may be made for manipulations are the following:—

	d.
For dissolving any extract, gum, &c.	1½
For making a solution of a salt or crystalline substance (including all necessary straining or filtration)	2
For making a decoction or infusion	3
" an emulsion	3
" a pill mass (up to about 5 drachms in weight)	1½
If any melting operation, as for wax, &c.	an extra 1½
For piping, cutting, rolling, and sprinkling the same, up to 30 in number	1½
For silvering the same	3
For coating with gelatine	4
" gold-leaf	6
For mixing powders	1½
For dividing the same <i>in chartis</i> extra	each ½
For preparing ointments (up to 2 oz.)	1½
If containing powders, extracts, or salts	2
If melting is further necessary	3
In preparing suppositories, for the first one	1½
For each additional one, an extra	½
For weighing and counting pills or drops, &c.	½
For a 1 oz. box 1½d., and for a 2 oz.	3
For a box to hold powders (up to 16 in number)	1½
" (over 16 in number)	3
For white glass bottles, ½ oz. to 3 oz., 2d.; 7 oz. to 10 oz.	4½
For green glass bottles, 10 oz. only	3

In private practice white glass bottles are always employed and expected by the patient; the green bottles are only used by hospitals, charities, and the like.

In the last number of THE CHEMIST AND DRUGGIST I read some accounts of the price charged for Bland's pills. In Germany 100 coated and in a glass bottle would be charged 1s. 10d.; if simply sprinkled with chalk or lycopodium in a bottle 1s. 2½d. The lady who was able to purchase ½ oz. of powdered myrrh and 1 oz. of precipitated chalk for 3d. in Yorkshire and for 4d. in London might be surprised to hear that in Germany, the reputed land of cheapness, such a mixture would not be supplied under 10½d. by any pharmacist. Mr. Hanbury's pills of calomel, aloes, colchicum, and opium would be valued at 6½d., which accords with the opinion of the majority of English pharmacists. A simple eye lotion (5vj. with sulphate of zinc) would be charged 6½d., and though this seems cheap it must be remembered that such a lotion at that price yields a high percentage of profit. Again, a 5vj. solution of potass. brom. (5ijj to 5vj.) would cost 8d.; or, if 1 oz. of syrup of orange be added, 1s. 1d. A solution of potass. iodid. of the same strength without syrup would be 1s. 2½d., with the syrup 1s. 8½d. An ointment of potass. iodid. (say ½ oz.), which is supposed to be always kept in stock as a pharmacopoeial preparation, would cost in a covered pot 6½d.; but a similar preparation of the same class, containing 120 grains of bals. Peru, 1 drachm of tincture of cantharides, lard to 1 oz., would be charged 1s. 3d.

Thus it is seen that the profit allowed to the pharmacist by the official tariff in Germany cannot be said to be capable of expression as a certain percentage of the whole sum charged, but rather as an estimation of the amount really due to the dispenser in proportion to the time, skill, &c., required in the preparation. Inquiry as to the average price of prescriptions in this country would show that it depends somewhat on the district. In some places, especially in the country, where medical men of an older school practise, the average will be found to be higher than where the younger generation prescribes, taking every precaution to avoid every possible source of extra cost in the preparation of their prescriptions. The latter are well acquainted with the tariff, and, in order to please their *clientèle*, they prescribe in the simplest manner. Even saline solutions are avoided if possible, the chemical being prescribed in bulk, and the patient directed to dissolve it. In the experience of the writer the average cost of prescriptions has varied in the year from 10d. to 11½d., but everywhere a gradual decline in this respect is noticeable yearly.

Legal Reports.

HERBALIN.

In the Chancery Division of the High Court of Justice, before Mr. Justice Kekewich, on Monday, the action of *Humphries v. The Taylor Drug Co.* was heard. This was an action by Mr. Jacob Humphries, trading as an operative chemist and wholesale and retail dealer in drugs, at Low Moor, under the style of J. Humphries and Co., against Mr. William Barker Mason, a wholesale druggist and retail store proprietor, carrying on business at Kirkgate, Bradford, and elsewhere, under the style of the Taylor Drug Company. The plaintiff asked for an injunction to restrain the defendant from infringing the plaintiff's registered trade mark, consisting of a representation of a ship with the word "herbalin" under the same (used in connection with a preparation of herb beer sold by the plaintiff), and from passing or attempting to pass off the defendant's goods—a preparation sold under the name of "herbaline"—or any goods not of the plaintiff's manufacture, as or for the goods of the plaintiff by means of the use of the word "herbaline," or any other word only colourably differing from the word "herbalin." The principal defences were that the defendant used the word "herbaline" before the plaintiff adopted that of "herbalin," and that the essential portion of the plaintiff's trade mark was the representation of a ship, and not the word "herbalin." The defendant moved to have so much of the plaintiff's trade mark expunged as consisted of the word "herbalin." The certificate of registration was granted in January, 1887, the application therefor having been made in June 1886.

Mr. Justice Kekewich found that the plaintiff used the word "herbalin" before the defendant commenced to use the word "herbaline;" but decided that the former word was not a fancy word which could be registered alone as a trade mark under section 74, subsection 1 (b), of the Patents, Designs, and Trade Marks Act, 1883, and that the defendant had arrived at the use of the word "herbaline" independently, and had not been guilty of any fraud. The defendant had not intentionally appropriated the plaintiff's mark, and therefore, apart from the law of trade marks, the plaintiff was not entitled to judgment. But the defendant had charged the plaintiff with copying his trade mark. This charge was entirely without foundation, and no order for costs ought therefore to be made in the defendant's favour. With reference to the application to expunge the word "herbalin," his Lordship said that word could not be held to be the proper subject of registration, as, according to the decision of the Court of Appeal in "*Waterman v. Ayres*," it was necessary that the word should be non-descriptive, which "herbalin" was not. The Act of 1883 enabled the Court to make any necessary entry with respect to registration, and his Lordship therefore directed a note to be placed on the register that the plaintiff was not entitled to the exclusive use of the word "herbalin." There would, however, be no order as to costs on the motion.

THE MINERAL-WATER TRADE AND THE MERCHANDISE MARKS ACT.

At the Middlesex Sessions on Thursday, before Mr. Littler, Q.C., William Baylis, mineral-water manufacturer, was fined 20*l.* and costs for having sold aerated water in bottles belonging to other makers.

BANKRUPTCY REPORTS.

Re DAVID ADDISON BRADBURY, Holly Bank, Lindley, Huddersfield, Surgeon.

A MEETING of the creditors under this bankruptcy took place on Monday at the office of Messrs. Haigh & Son, solicitors, Huddersfield. The facts connected with the bankruptcy are that on October 8 last a receiving order was made on the petition of the executors of the debtor's father, who claimed final judgment against the debtor on August 4, 1882, for 282*l.* 18*s.* 5*d.* The only asset the debtor says he has is a

contingent reversionary interest under his father's will, and the contingency is that if the debtor does not survive his mother, there is no interest whatever. There is no statement of accounts, and the above practically embraces the Official Receiver's observations.

The petitioning creditors were represented by Mr. J. W. Piercy, and Mr. T. S. Simpson appeared on behalf of the debtor. It was resolved that the debtor be adjudicated as bankrupt, and being a summary case, the Official Receiver is trustee.

Re G. F. G. CLARK, the younger, Market Place, Dudley, Chemist and Druggist.

THIS debtor came up for his adjourned public examination at the Dudley County Court on Monday, before Mr. Registrar Riley. The bankrupt was briefly examined as to his dealings with his father at the time of the dissolution in the matter of "*Squire Knight's*" recipes and the leaving of these as security. For the benefit of the estate he enumerated the recipes from memory, and having sworn that all the creditors had notice that the partnership was to be dissolved, he was allowed to pass his examination.

Re WALTER FOWALL COLMAN, 85 Buckingham Road, Brighton, Surgeon.

AT the Official Receiver's, Brighton, on Monday, the creditors under this failure met under the presidency of Mr. Cully, Deputy Official Receiver. The debtor, who has been in practice in Brighton for the past eighteen years, has filed a statement showing gross liabilities 337*l.* 18*s.* 11*d.*, which are expected to rank to the extent of 347*l.* 18*s.* 11*d.* The assets are stated at 211*l.* 1*s.* 11*d.*, and after making allowance for preferential claims of 57*l.*, there is a deficiency of 154*l.* 1*s.* 11*d.* The debtor attributes his insolvency to severe losses of private means and to bad debts, and he purposed to make an arrangement to pay 20*s.* in the pound, by setting apart 15*l.* for the first two quarters, and 20*l.* per quarter afterwards. In answer to questions it was said that no security was offered, but Mr. Cully said if the case went into bankruptcy he was afraid the creditors would get very little. The matter was adjourned for a week to see if any security was forthcoming for the fulfilment of the debtor's proposals.

The principal creditors are:—

	£	s.	d.
Du Pont, A., Brighton	12	12	0
Foster & Else, chemists, Brighton	45	4	3
Hughes Bros., Brighton	11	15	1
Knight, W., veterinary surgeon, Brighton	11	13	9
Lesett, J. H., Brighton	10	13	3
Larkin & Co., "	11	2	5
Stenning, W., "	30	0	0
Smith, J., & Co., "	16	9	6
Willard & Son, "	11	5	10
Chipperfield & Butler, Brighton	9	7	7
Francis, J., Brighton	8	15	6
Cockburn, J. & G., Edinburgh	8	16	0

The preferential creditors were 52*l.* for rent and 5*l.* poor rates.

JAMES JEFFCOAT, 1 London House Yard, St. Paul's Churchyard, Chemist.

AT the London Bankruptcy Court a sitting was held on November 2, before Mr. Registrar Brougham, for the public examination of this debtor, who filed his own petition on August 28 last, and subsequently submitted accounts showing gross liabilities amounting to 353*l.* 1*s.* 8*d.*, of which sum 279*l.* 12*s.* 8*d.* is expected to rank against assets valued at 48*l.* 8*s.* 2*d.*, after allowing 63*l.* in respect of the preferential claims. Mr. Howell represented the Official Receiver and examined the debtor, who stated that he took over his employer's business of a chemist in March 1886. He arranged to pay 190*l.* for the purchase, and having no money of his own, he borrowed that amount at 5 per cent. interest. He paid 160*l.* down and gave bills for the balance, and arranged to repay 100*l.* of the borrowed money by monthly instalments. Previous to buying the business he had been employed by his predecessor for three years, during which time he did not know the actual amount of profit made, but

based his belief upon what he had seen of the trading. The payment of the instalments had crippled him. He had a wife and three children, and when he first took over the business had drawn 3*l.* per week therefrom for household and personal expenses. At that time the profits exceeded that sum, but the business had since fallen away, and there were certain trade restrictions placed upon him. He had continued to trade in the same way as his predecessor, and he thought that if he had sold goods at the store prices his trade would not have fallen away. He had kept a ledger showing goods bought and sold. He was not brought to the Court by pressure put upon him by the person from whom he borrowed the money, but by trade creditors. At the time he purchased the business a young man had promised to join him in partnership and to introduce some capital, and had this been effected no doubt the business would have proved successful. His Honour ordered the examination to be concluded.

BYRON BLEWETT, 120 Leadenhall Street, Surgeon.

AN application was made on Friday at the London Bankruptcy Court to Mr. Registrar Giffard for this debtor's order of discharge. Mr. Herbert Reed and Mr. Carrington were instructed to oppose the application on behalf of the trustee, and Mr. Yate appeared for the bankrupt. It appeared from the Official Receiver's report that the debtor filed his own petition in June 1886, and subsequently submitted accounts showing liabilities 2,274*l.* 1*s.* 4*d.*, ranking against assets valued at 653*l.* 10*s.* 1*d.* Proofs were, however, tendered by some twenty creditors for debts amounting to 2,106*l.* 9*s.* 2*d.*, and the trustee expected the assets to realise only 336*l.* 8*s.*, and reported that a dividend of 3*s.* in the pound would be declared. Mr. J. W. Woodthorpe was appointed trustee by the creditors at a meeting held in July 1886, and the debtor's public examination was closed in the following November. He then stated to the Court that he commenced to practise as a surgeon in London in the year 1871. In 1879 he was adjudged bankrupt. The accounts of that failure showed debts 3,925*l.* and assets 45*l.* only, and he obtained his discharge under those proceedings in August 1882. He attributed his present failure to losses by speculations on the Stock Exchange, which cost him nearly two thousand pounds. The offences charged by the Official Receiver were that the bankrupt had brought about his failure by rash and hazardous speculations, and that he had a previous failure recorded against him. The bankrupt, who appeared to be in a very weak state, was examined by Mr. Carrington.

Mr. Carrington said the bankrupt, instead of giving the trustee every assistance in his power, had impeded him in his duties with the result that the book debts recovered only amounted to 300*l.* instead of 600*l.*, the amount returned by the debtor in his statement.

Mr. Yate Lee in supporting the application drew the attention of the Court to the fact that the bankrupt had since his previous failure paid at least half of those creditors in full although he had been discharged from those liabilities. The only creditors now opposing were the brokers who had acted for the bankrupt in his Stock Exchange transactions.

The Registrar in commenting upon the case said the circumstances of the previous failure and of the present bankruptcy must be taken together. The debtor evidently had a tendency for speculation; both of his bankruptcies had arisen through speculation, and the debtor being a medical man had nothing to do with Stock Exchange affairs. Speculation of this kind was a very serious thing and a growing evil. The discharge would be suspended for two years from August 8 last, on the ground of rash and hazardous speculation.

Re CHARLES MARQUARDT, 11 Billiter Square, City, and at Calcutta, Merchant.

A RECEIVING order was made against the estate of this debtor on May 11 last. He traded at the above address under the style of "Marquardt, Lehzen & Co.," and has now filed a statement of his affairs showing total liabilities amounting to 27,498*l.* 3*s.* 10*d.*, of which 15,824*l.* 18*s.* 6*d.* is expected to rank against the estate. They are made up as follows:—Unsecured creditors in London 6,110*l.* 13*s.* 1*d.*, at Calcutta 7,505*l.* 11*s.* 4*d.*; fully secured creditors 8,333*l.* 2*s.* 9*d.*, holding securities estimated at 13,729*l.* 7*s.* 2*d.*; partly

secured creditors 3,824*l.* 15*s.* 5*d.*, with securities valued at 3,226*l.* 13*s.* 6*d.*; liabilities on bills other than the debtor's own acceptances, 1,610*l.* 11*s.* 11*d.*, and preferential creditors for rent, rates, wages, &c., 113*l.* 9*s.* 1*d.*. The assets are returned at 8,325*l.* 2*s.* 11*d.*, and are stated to consist of cash at London 139*l.*, cash at Calcutta 67*l.* 14*s.*; household furniture valued at 385*l.*, other property, estimated to produce 909*l.* 1*s.* 4*d.*; good book debts, 1,428*l.* 3*s.* 2*d.*; doubtful and bad book debts amounting to 3,612*l.* 1*s.* 9*d.*, not estimated to be of any value as an asset; and the estimated surplus of 5,396*l.* 4*s.* 5*d.* from the securities held by the fully-secured creditors. After deducting the preferential claims of 113*l.* 9*s.* 1*d.*, a sum of 8,211*l.* 13*s.* 10*d.* is left available, and the deficiency is therefore returned at 7,613*l.* 4*s.* 8*d.*. The Official Receiver reports that the debtor states he was in 1862 admitted as a member of the firm of Heilgers & Company, East India merchants, of London and Calcutta; that in May, 1884, he retired from his partnership, and subsequently received his capital, amounting to about 30,000*l.*; that in October, 1884, he commenced business on his own account in London and Calcutta, and that in July, 1886, having then a capital of about 28,000*l.*, he took Mr. Lehzen into partnership to manage the business at Calcutta, and traded as Marquardt, Lehzen & Company, which partnership was dissolved in May, 1887, Lehzen being indebted for overdraft and share of losses to the extent of about 1,000*l.*. This debt, however, is considered to be of no value. The outstanding debts of such partnership amount to about 150*l.*. After the dissolution of partnership he continued the business with a reduced capital, estimated at 11,000*l.*, retaining his late partner as manager in Calcutta. He attributes his failure and deficiency generally to losses since 1886 on realisation of shipments of Indian produce, consisting principally of cotton, indigo, shellac and hides, estimated at 20,000*l.*; to losses by bad debts, 3,612*l.*; and to his expenses having exceeded his profits since January, 1887, owing to his having been partially incapacitated from attending to his business for a long period through illness. He has been required to file an account in explanation of the loss of 28,000*l.*, the amount of his capital in July, 1886; and also in explanation of the present deficiency, which is at present only approximately accounted for. The other liabilities, returned at 1,610*l.* 11*s.* 11*d.*, represent claims that may arise on realisation of goods. The debtor has consented to be adjudged bankrupt, and has materially assisted in the realisation of his estate. The delay in the filing of the statement of affairs has arisen from the necessity of obtaining accounts and information from Calcutta; in the meantime the greater part of the estate has been realised by the Official Receiver, producing 8,835*l.* 11*s.* 6*d.*, about 500*l.* more than the debtor's estimate, and a first dividend can be forthwith declared. The other assets are expected to produce a further 1,200*l.*. The first meeting of creditors is called for the 14th inst., and the debtor's public examination is appointed to be held on November 29.

Trade Notes.

MR. E. SLATER has purchased the business from H. H. Heslop, Market Street, Kingswinford.

MR. J. D. RIEDEL, of Berlin, has obtained a gold medal at the Brussels Exhibition for Sulphonal-Riedel and tabloids made therefrom.

MR. ERNEST SAMSON, representing Messrs. S. Maw, Son & Thompson, leaves London by the *Lusitania* this week with the intention of making a journey throughout the Australasian colonies on behalf of the above-named eminent firm. The cases of samples which Mr. Samson will carry with him, and which we were invited to inspect a few days since, form, perhaps, the most complete and interesting collection of the goods which come under the description of "druggists' sundries" which has ever been sent from this country. In five large cases compactly packed are specimens representing many thousands of lines. One case is devoted entirely to surgeons' instruments. All the samples are taken out of stock, and a very large proportion of the goods offered are manufactured by the firm in their own factories. Many chemists in Australia will, no doubt, be glad of so good an opportunity to inspect Messrs. Maw's specialities.

Gazette.

PARTNERSHIPS DISSOLVED.

Cox, S., & Co., Deitend, Birmingham, mineral water manufacturers.
Jones, E. A. and Kirkhouse, G., Kingsland Road, general medical practitioners.

Paradise & White, Kingston-on-Thames, surgeons and apothecaries.
Smith & Douglas, Dulwich Road, Herne Hill, physicians and surgeons.

THE BANKRUPTCY ACT, 1883.

RECEIVING ORDER.

Darby, Fred, and Robertshaw, Edward (trading as Darby, Robertshaw & Co.), Bradford, drysalers, druggists, and pickle manufacturers.

FIRST MEETINGS AND PUBLIC EXAMINATIONS.

Darby, Fred, and Robertshaw, Edward (trading as Darby, Robertshaw & Co.), Bradford, druggists, drysalers, and pickle manufacturers—November 12, Official Receiver's chambers, Bradford; November 16, County Court, Bradford.

Johnson, Charles William (trading as Miller & Johnson), Mark Lane, City, Rainham, Essex, and Cheshunt, Hertfordshire, chemical manure manufacturer—November 13, Bankruptcy Buildings, Portugal Street, Lincoln's Inn Fields; November 30, 34 Lincoln's Inn Fields.

Julier, George, St. George Street, St. George-in-the-East, mineral water manufacturer—November 14, 33 Carey Street, Lincoln's Inn Fields; November 30, 34 Lincoln's Inn Fields.

Marquardt, Charles (trading as Marquardt, Lehzen & Co.), Billiter Square, City, Forest Hill, Kent, and Calcutta, merchant—November 14, Bankruptcy Buildings, Portugal Street, Lincoln's Inn Fields; November 23, 34 Lincoln's Inn Fields.

DAY APPOINTED FOR PROCEEDING WITH PUBLIC EXAMINATION ADJOURNED SINE DIE.

Atkinson, George Fernley, Snaith, Yorkshire, physician and surgeon—November 12, County Court office, Wakefield.

ADJUDICATIONS.

Batten, Charles W., late of Bristol, present address unknown, mineral water manufacturer.

Branford, William Cotton, Sinclair Road, West Kensington Park professor of veterinary surgery.

Darby, Fred, and Robertshaw, Edward (trading as Darby, Robertshaw & Co.), Bradford, druggists, drysalers, and pickle manufacturers.

NOTICE OF DIVIDEND.

Cann, Frederick, Bridgnorth, Salop, veterinary surgeon—second and final div. of 9s., November 10, Official Receiver's office, Ludlow.

APPLICATION FOR DEBTOR'S DISCHARGE.

Ferguson, William Kennedy, Leeds, chemist, druggist, and electro-plater, trading with T. W. Wetherell—December 6, County Court House, Leeds.

SCOTTISH SEQUESTRATIONS.

Bennett, James Moss, otherwise called James Bennett, a partner of the firm of the St. Mungo Chemical Company, Glasgow, also a partner of the firm of Neil Bennett & Co., gas engine makers, Glasgow and London, as such partner and as an individual. Creditors meet in the Faculty Hall, St. George's Place, Glasgow, on Thursday, November 15, at 12 o'clock. MacBride, Davidson, McArthur, and Stevens, agents.

The St. Mungo Chemical Company, manufacturing chemists Rachill, Glasgow, and James Telfer, manufacturing chemist, Rachill, Glasgow, one of the partners of said company, as such partner, and as an individual, the estates of the only other partner of the said company having already been sequestrated, viz. James Moss Bennett, otherwise called James Bennett. Creditors meet same day and place as above, at 11 A.M.

MR. PETER MÖLLER, of 43 Snow Hill, E.C., is willing to present to chemists for distribution an imitation willow-plate pattern trayful of book-marks. Each mark is a clever and artistic representation of a codfish. Customers would certainly be attracted by a trayful of these placed on the counter.

EXTRACT FROM THE REGISTER OF DEEDS OF ARRANGEMENT.

The following deeds of arrangement with creditors have been filed at the Bills of Sale Office, under the provisions of the Deeds of Arrangement Act, 1837. Some of these deeds are for the purpose of carrying out compositions with creditors (and such are specified below), but the great majority of them are "assignments" in the ordinary form, to a trustee or trustees, for the benefit of creditors. The Act referred to expressly provides that registration shall not give validity to any deed which is an act of bankruptcy, and there is no provision, in the Act, making any of these arrangements binding upon dissenting creditors.

Tillotson Brothers (trading as James Henry Tillotson), Church Street, and 52 Belyedere Road, Burnley, drysalter. Trustees: A. Oldfield, 17 Todd Street, Manchester, druggist, and another. Date, October 23; filed, October 30; unsecured liabilities, 1,740*l.* 12*s.* 6*d.*; estimated net assets, 437*l.*

Pink, Edward, & Sons, London	..	..	..	..	15
Nixey, W. G., London	..	..	..	..	13
Thompson, J. P., Barrow	..	..	..	..	12
Tillotson, Tom B., Blackpool	..	..	..	..	77
Bridge, Thomas, Blackpool	..	..	..	..	103
Tillotson, Elizabeth H., Burnley	..	..	..	..	125
Manchester and County Bank, Burnley	..	..	..	..	350
Lancashire and Yorkshire Bank, Burnley	..	..	..	..	44
Smith, T., Burnley	..	..	..	..	14
Dyson, James, & Co., Elland	..	..	..	..	15
McCall & Stephen, Glasgow	..	..	..	..	96
Gibson Brothers, Hull	..	..	..	..	36
Reckitt & Son, Hull	..	..	..	..	23
Merrikin, W. A., Hull	..	..	..	..	30
Watson, J., & Sons, Leeds	..	..	..	..	12
Cambrian Vinegar Company, Leeds	..	..	..	..	19
Crofield, H. S., & Co., Liverpool	..	..	..	..	10
Jackson, W. & H., Liverpool	..	..	..	..	68
Poppleton, Sons, & Co., Lincoln	..	..	..	..	16
Kerfoot, T., Manchester	..	..	..	..	34
Berry, William, Manchester	..	..	..	..	12
Sherratt & Co., Manchester	..	..	..	..	16
Oldfield, Pattison & Co., Manchester	..	..	..	..	51
Brooks, Joseph, Manchester	..	..	..	..	14
Guest, Thomas, & Co., Manchester	..	..	..	..	10
Lancashire and Yorkshire Railway Company, Manchester	..	..	..	..	10
Barringer & Brown, Mansfield	..	..	..	..	14
Royse, A., & Sons, Middleton	..	..	..	..	20
Fryer, F., & Co., Nelson	..	..	..	..	82
Moss, Rivington & Co., Selby	..	..	..	..	23
Bassett, G., & Co., Sheffield	..	..	..	..	41
Gossage, W., & Sons, Widnes	..	..	..	..	10

It is estimated that in the United States there are 5,351 electric-light plants and stations, working 192,500 arc and 1,925,000 glow lamps, and consuming 460,000-horse power. There are thirty-four electric railways, 138 miles in length, run over by 223 motor cars using 4,180-horse power.

DRUGGISTS AND MARRIAGE.—We quote this opinion from the address which Dr. Henrietta Westbrook gave to the Philadelphia College Alumni Association:—"The ideal druggist does not marry young; twenty-five will do, but thirty is better. Then he knows his own needs. He should be a true lover, however, long before that time. Let him love, not as a certain party are said to vote, 'early and often,' but only let him, early and wisely, seek his ideal. . . . When, after years of mutual study and acquaintance, one is sure of his radicle, happy is the druggist whose sweetheart becomes his wife, and whose wife is always his sweetheart."

ELEGANT PHARMACY.—"We believe," says the *Lancet*, commenting on Mr. Bengers's address, "that in the medical profession the work of the pharmacist is scarcely sufficiently studied and appreciated, and that many valuable drugs fall into disrepute from an insufficient consideration of the numerous suggestions for aiding their administration and toleration. Members of the general public are not slow to avail themselves of the proprietary remedies, which so often combine the advantages of being agreeable to taste, smell, and appearance. It is our fault if, by lack of attention, the drugs we prescribe are one whit more nauseous and repellant."

MEETINGS OF COMPANIES.

HOOP BITTERS COMPANY (LIMITED).

THE annual meeting of this Company was held at the Cannon Street Hotel on Thursday. The chair was occupied by Mr. E. B. de Fonblanque, the chairman of the company, and about forty shareholders were present.

A summary of the report and accounts was printed in this journal last week.

The chairman, in moving their adoption, expressed his regret at the unsatisfactory position of affairs, but explained that this was entirely due to the circumstance that for want of sufficient capital they had been compelled to practically suspend their advertising. The amounts spent in advertising and the total sales under the management of the original proprietor had been as follows:—

Year	Advertising	Returns
	£	£
1830-1-2	10,326	26,357
1883	14,242	29,066
1884	15,079	32,237
1885	15,546	45,034
1886	13,401	49,085

This showed an average return of 289% for every 100% spent in advertising. Their own experience showed a return of 246% for every 100% spent. They had, however, been greatly hampered by imitations and by lawsuits. These were all now cleared away, and he had no doubt that if they had capital an even better return than before might be looked for.

In answer to questions it was stated that Mr. Angus Cameron, the late manager of the company, had been invited to be present at the meeting, but he had declined. It had been a condition made by Mr. Seeley when they bought the business that Mr. Cameron should be employed as manager at 1,000% a year. That arrangement was now cancelled.

After a short discussion the shareholders appointed Messrs. Edgehill, Baker & Clewlow to investigate the position of the company, and the meeting was adjourned to some date within six weeks, to be subsequently announced, when the committee will report the result of their inquiries.

THE QUININE BITTERS MANUFACTURING COMPANY (LIMITED).

THE statutory meeting of this company was held at the office of the company's solicitors, 8 Old Jewry, on Thursday. Mr. George R. Barclay was voted to the chair, and remarked that there were no accounts or report to present to the meeting, but he had pleasure in stating that since the business had been taken over by the company it had continued in a most flourishing condition, and had already earned sufficient to pay 10 per cent. upon the paid-up capital to March 31, 1889. The directors have resolved that an interim dividend at the rate of 10 per cent. per annum be paid up to November 30, 1888, to be paid as soon after that date as possible.

THE CHEMISTS' AERATED MINERAL WATER ASSOCIATION (LIMITED).

THE directors of this company, in their 10th annual report just issued, state that their membership has grown from 1,612 to 1,892, the largest increase they have ever had in one year. The exceptionally cold summer has, however, checked their business, and they have had some special losses in connection with syphons, and besides have lost five horses in an epidemic. They are, however, able to recommend a payment of a 5 per cent. dividend. Their profit amounts to 1,634l. 9s. 2d. The dividend will absorb 765l. 7s. 8d. They purpose to write 868l. off several accounts, and to carry forward 1l. 1s. 6d. The profit is acquired from the several branches as follows: Harrogate, 1,477l. 8s. 9d.; London, 1,193l. 1s. 5d.; Bristol, 32l. 2s., making a total of 2,702l. 12s. 2d.; from which has to be deducted secretarial expenses, 400l. 19s. 8d., interest on debentures, &c. 438l. 15s. 8d., advertisements, 57l. 15s. 2d., and directors' fees, 170l. 12s. 6d., leaving the net profit as stated.

"THE ART OF DISPENSING."

SEVERAL of our contemporaries have lately been commenting on "The Art of Dispensing," and from their reviews, which in all cases are very complimentary, we make the following extracts:—

The *Practitioner* writes:—"This careful handbook of practical pharmacy deserves a wide circulation, not only among practitioners who are in the habit of dispensing, but also among those who simply prescribe. A knowledge of what is possible, to say nothing of what is eligible or elegant, in the combination of remedies, is in many quarters sadly wanting; and it is in the highest degree instructive for all physicians to study, as they may in this treatise, how their prescriptions look from the point of view of the druggist. We owe so much to the auxiliary profession of pharmacy, nay, we depend so much for our success on its skill and efficiency, that it behoves us to consider carefully the problems we propose to the dispenser, and the sound criticisms he is able to offer on the methods of solving them. Our contemporary THE CHEMIST AND DRUGGIST has rendered a real service to our profession in digesting into a compact volume the pharmaceutical notes and instructions which have appeared from time to time in its publications; and though the work is principally intended for the dispensing counter, we are convinced that its usefulness to our own readers will be readily recognised."

In the course of a column review, the *Provincial Medical Journal* says:—"This work must be welcomed by the student who really wants to learn his profession. Dispensing is an art, though unfortunately of late years there has been a tendency to deny this. Prescription writing has gone out of fashion, and dispensing has not been so much practised. Ready-made prescriptions account for this. Rule-of-thumb dispensing is no doubt easily learnt, and any office boy of average intelligence can pour a certain number of drops into a vessel and fill it up with water; but this is a very different kind of thing from the dispensing treated of in this volume. Apprentices who will take the trouble to read this work will form a higher conception of their calling; and if they master all the details so clearly explained, they will be qualified for what is so truly described as the most responsible part of the pharmacist's duties. . . . The authors have the power of putting their ideas clearly and concisely. The book might have been swelled to a voluminous extent by the use of padding, of which there is not a single line."

The *Pharmaceutical Record* of New York, in addition to quoting liberally from the pages of the book, says:—"This recently issued work is one that is peculiar in many respects. It is not the work of one, but of many authors. It is a collection of the best views of the best men on special departments of pharmacy. The book is a great desideratum, and we cordially commend it for its very valuable contents to the consideration of all pharmacists. Students will find many excellent hints in its pages, and even the man of many years' experience will find it useful both to read and to refer to when some bothersome prescription comes before him."

The *Pharmaceutische Zeitung*, in comparing the volume with Dr. Hager's "Technik der Pharmaceutische Receptur," remarks that "a glance over its pages immediately shows that there is a characteristic difference between them . . . this difference being due to the different methods of education and the different modes of prescribing in England and Germany. As regards the contents of the book, we need only say that in short chapters the actual forms of medicine are treated separately, and more or less in detail, according to the popularity which they enjoy in England; pills and emulsions are, for instance, treated with great thoroughness. . . . The book contains a chapter on German and French dispensing, in which the difficulty of reading German prescriptions occupies an important place. . . . Our London correspondent recently stated that the book rejoices in an extraordinary success. This without doubt is a proof that our British colleagues feel the want of a scientific exposition of the art of dispensing, and we trust that in this respect the book will inaugurate a new epoch."

TRADE "SANITAS" MARK.

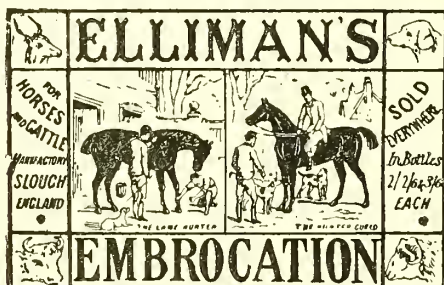
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[2] BRITISH MEDICAL JOURNAL, August 25, 1888.

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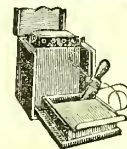
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10 " 12 " ... 15/9 "		10 " 12 " ... 11/6 "	
		16 " ... 15/0 "	

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Liquors? If not, send to the
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EDITORIAL NOTES.**THE PHARMACEUTICAL COUNCIL.**

THERE was probably more latent excitement at Bloomsbury Square before the business commenced on Wednesday morning than there has been for several years. This was owing to the expected debate on Dr. Symes's motion regarding regulations for the storage, dispensing, and selling of poisons, and the interest of the business preceding the motion was consequently somewhat checked. The first part of the solid business was the election of a successor to Mr. Baildon. This the Council lingered over for some time, not, we believe, because of any hesitation on their part to recognise the fitness of Mr. Watt, who was appointed; but they had before them the nomination by the Executive of the North British Branch in Mr. Watt's favour, and this appears to have given rise to some question of procedure which required consideration in committee. It will be noticed from our report that the Scotch nomination was kept out of sight during what transpired in public, probably with the object of showing that in these matters the Council acts independently. The finance report revealed the fact that the treasurer of the Society feels that he is getting dangerously short of cash. Although about 1,500*l.* of stocks were disposed of last month, Mr. Robbins found at the beginning of this month a bank balance insufficient to meet the contemplated payments immediately required. A timely cheque from the Society's publishers has, however, temporarily relieved the pressure. Still a majority of the Council regard these shadows of the gloomy future with indifference, if not with complacency. The possibility of "hard times" is not yet realisable. The old question of canvassing London on behalf of the Benevolent Fund came up again on the proposal of Mr. T. C. W. Martin that this should be done by volunteers. The provinces are well canvassed, and it seems odd that the metropolis—the wealthiest part of the country—should not be similarly favoured. With a good staff of volunteers working in well-arranged districts, there should be little difficulty in obtaining a substantial augmentation to the fund.

A personal inquiry at this stage of the proceedings induced the Council to go into committee, but the result was a discussion on a principle which could not have failed to have interested subscribers and strengthened the fund. The Council, however, is rapidly drifting deeper into the abyss of secrecy so inimical to the true interests of the Society, but so favourable to councillors whose opinions have been "modified" since they first asked for election. But rarely have the tactics of concealment been so unjustifiably adopted as when they were employed, as they were on Wednesday, to stifle all expression in regard to the Poisons Regulations which Dr. Symes was to propose. Their advocate came to the table well primed with his case: he had given a month's notice; during the interval he had collected opinions from different parts of the country; and now with these reduced to copious notes, and with half a dozen volumes of this journal and the *Pharmaceutical Journal* before him, he rose to submit his resolution. At once a feeble demand for secrecy arose, which the President dared not neglect, though it was not apparently so welcome to him as such motions generally are. The result was that, while less than half of the members voted, the motion to go into committee was carried. Dr. Symes and Mr. Evans were the only members who opposed the motion, while Messrs. Bottle, Carteighe, Cross, Greenish, Hampson, Nichol, Richardson, Robbins, Savage, and Schacht found themselves unable to resolve either on a courageous declaration of their opinions or on an open admission of their weakness. Under the circumstances Dr. Symes declined to move his resolution, which therefore fell to the ground. We suppose the balance of opinion which has been expressed in letters published by us during the past month on this subject must be regarded as adverse to Dr. Symes's views. Perhaps the adverse view is the right one, but whether it be so or not we cannot conceive of a decent reason for the unheroic policy of last Wednesday. Dr. Symes was quite right, in the circumstances, to allow his motion to fall to the ground. This was the only opportunity he had of replying publicly to the criticisms which have been freely passed upon him; and, apart from that, since he entered the Council he has been a persistent opponent to secret discussions. Mr. Gwilym Evans, too, who was the first to object to the motion for committee, set the good example of withdrawing from the Council room altogether rather than take part in the private decision of a subject which he understood he was commissioned to discuss as before his constituents. But the chief blame, we fear, for the collapse is due to those who would have wished to vote with Dr. Symes. The opponents of regulations are pretty confident of public applause, and are not generally afraid of announcing their resistance to what they deem tyranny and injustice; but the other side fear to launch on a sea of unpopularity out of consideration for the safety of their own seats, and with respect for the fragility of the vessel which they navigate.

THE IRISH PHARMACY BILL.

THE President of the Pharmaceutical Society of Ireland sends us a letter in reply to our article of last week in reference to the Bill for which he and his Council are responsible. We handsomely deserve his castigation for our stupidity in alluding to the forthcoming committee stage of the Bill as the second reading. For that blunder we do penance; but it in no degree touches the argument in respect to the character of the Bill. Our fairness or unfairness in the past, present, or future is equally irrelevant, though we do not abandon our claim to have considered the Bill with perfect impartiality. Nor do we care to dispute with Mr.

Brunker the origin of this Bill. We are well aware that legislation was talked about for years, and we always agreed as to its necessity; but the objectionable details of this Bill were not formed or planned ten or five years ago. But we should think that even Mr. Brunker will admit that (to adopt Lord Salisbury's language), if the imperfections of the 1875 Bill were the disposing cause of this Bill, the defeats of the Society in the Law Courts were its exciting cause. We do not know, though Mr. Brunker says we ought to know, that the chemists and druggists contemplated by the Act of 1875 were a totally different class in their rights and duties from those whom we "now affect to champion." We do know that the authors of that Act intended to take such chemists and druggists as now exist in Ireland and form them into a compact and registered body. If the old Council had carried out that intention none of the existing pharmaceutical difficulties would have arisen. We understand Mr. Brunker to say in his next paragraph that the Bill would not affect the chemists and druggists in business before 1875 further than by requiring them to register and keep on the register. It proposes to degrade their title, to charge them an annual fee, and to compel them to announce their degradation on their doorposts. It aims to stop the future supply of chemists and druggists, and will thus annihilate their property in goodwill as chemists and druggists. What is the use of saying it would not affect their business? This applies to druggists established since 1875, as well as to the others. But these, if they are selling scheduled poisons are carrying on an illegal business, Mr. Brunker says. We do not dispute the technical point, but we say that it was the failure of the Pharmaceutical Council to provide a registered body of chemists and druggists which has made that illegality necessary. The Society "do not desire or expect to put any druggist out of his calling." What are they going to do if he does not pay the half-guinea a year? Lastly, Mr. Brunker says he could hardly have supposed that even we would have charged the House of Lords with attempting to impose by law a brilliantly conceived insult on the chemists and druggists. We are capable of no such irreverence. We believe the Peers adopted the clause in their ignorance or innocence—whichever term pleases Mr. Brunker best. But the fact that they did adopt it destroys all our respect for their legislative performance in this matter. The Irish Pharmaceutical Council have not, however, protested against the clause; they have, in fact, supported it, and they cannot be excused on the ground of either ignorance or innocence.

THE SALE OF FOOD AND DRUGS ACT.

IN the seventeenth annual report of the Local Government Board which has just been issued we have the usual record of the working of the Sale of Food and Drugs Act. The accounts of the year 1887 are here dealt with. The statistics are moulded in the form already cast, and are of very little value indeed. They show that during the year a total of 24,440 samples of food and drugs were analysed, and that of these 3,134 were found to be adulterated. The official statistician shows in his table that the proportion of adulterated samples was therefore 12.8 in 1887 against 11.9 in 1886, and the philosophic sociologist of the daily papers will seize on this item and expound to the world that adulteration is growing apace amongst us.

But we have a little to thank the Local Government Board for. Four years ago we asked the President of the Local Government Board to tell us in how many of the alleged cases of adulterations were proceedings taken and conviction obtained. We were told that the Board did not get that in

formation; they received only the reports which the analysts present to their employers. We have asked again and again why the Board do not demand such particulars, and thus get the only possible check on the analysts' irresponsible frivolity or incompetence. And lo, this year, something like the statement we have asked for is forthcoming. The Board say:—

The statutory reports which we receive from the authorities are copies of those made to them by the analysts, and show the number and description of samples analysed, with the result of each analysis, but do not contain any particulars of the steps taken by the authorities when adulteration has been detected. It seemed to us, however, desirable to obtain information on this point, and accordingly, in our annual circular to the authorities, we asked for a statement of the cases in which legal proceedings had been taken with respect to samples reported as adulterated, of the results of such proceedings, and of the respective amounts of the penalties inflicted. We have received particulars from the authorities of ninety-three districts, showing that in those districts 1,884 samples were reported against, that proceedings were instituted in 1,307 of these cases, and that fines were imposed amounting in the aggregate to 1,884*l.*, besides costs. The average penalty thus appears to be rather less than 29*s.*, an amount which can scarcely be considered as in any high degree deterrent, considering the large profits of adulteration.

This is only satisfactory in a very limited sense. There are about 250 districts where analysts are at work, and returns have only been received from 93 of them. These refer to 1,884 samples out of the 3,134 reported against. Of the 1,884, prosecutions followed in only 1,307 cases, and as regards these it is almost incredible that the Board should present their information in such a loose manner as not to tell us how many convictions were obtained. A total sum of 1,884*l.* was obtained in fines, and this, divided among 1,307, would give only 1*l.* 9*s.* as an average fine; and then the Board start off to denounce the leniency of magistrates. But the amount was not to be divided among 1,307; it was to be divided among the convictions, which were certainly less than 1,307, perhaps very considerably less.

Analysts have been appointed in 52 counties, in 179 boroughs, and by all the metropolitan vestries. The public avail themselves but very little of the provisions of the Acts, and the operation of these chiefly depends upon the vigour of the local authorities in procuring samples for analysis. In London about twice as many samples are obtained in proportion to the population as in the provinces, viz., one for every 596 persons, as against one for every 1,228 persons. In the Strand district one sample was procured for every 131 persons, and in St. Giles's one in 222. On the other hand, not a single sample was taken in the populous district of St. Mary, Newington, nor in that of St. Martin-in-the-Fields; and in Islington, which is the largest of the London districts, containing a population of considerably more than a quarter of a million, only one sample was analysed for every 2,525 persons.

General indifference to the Act has been shown in Plymouth, Lincoln, Gloucester, Carlisle, and Oxford. Among counties Devonshire, Dorset, Shropshire, Norfolk, Suffolk, Wiltshire, Cambridgeshire, Cornwall, Monmouth, Northumberland, the North Riding of Yorkshire, and several Welsh counties are said to have very inadequately enforced the Acts; and Preston, Norwich, Middlesbrough, South Shields, Northampton, and Ipswich are similarly charged. These two classes of provincial districts (namely, those in which no samples have been analysed, and those in which the number has been so small as to afford no security against adulteration) contain an aggregate population of more than five millions.

The report states that in all 441 samples of drugs were examined, and that 48, or nearly 11 per cent., were reported against. Lancaster seems to have contributed chiefly to the percentage of unsatisfactory results under this head. For the county 41 samples of drugs were examined and 20 were reported to be adulterated; and in Liverpool out of 6 samples examined, the analyst found 5 impure. In the whole of the Metropolitan district 176 samples of drugs were analysed, and of these 2 only were reported to be adulterated. One of these interesting cases occurred at Chelsea and the other at Westminster. In the City of London, where more adulterated drugs are sold than in all the rest of the kingdom put together, the analyst says he examined 50 samples and found them all pure. We have ourselves shown him adulterated drugs sold by the ton within a mile east of his office, but he seems to consider that when fraud is carried on on a large scale it has grown too respectable to come within the range of Sale of Food and Drugs Act.

We are glad to note that the Board have profited by the lectures we have read them in the past. Referring to the 44 samples of drugs reported against they say:—

Of these, however, 23 were of sweet spirits of nitre, and it is probable that in many of these cases there was no wilful adulteration, but the spirit had been reduced below the standard strength by evaporation. Out of 29 cases in which analyses were made in order to ascertain whether medicines had been compounded in accordance with particular prescriptions, there was only one adverse report.

Water in milk, margarine for butter, chicory in coffee, and water with spirits make up the majority of the complaints. Among miscellaneous articles analysed nearly half the samples of yeast were reported against, about a quarter of the samples of cocoa, and 15 out of 80 samples of aerated waters. In this last case the adulteration seems to have been usually due to accidental defects in the manufacture or the bottling.

BUYERS OF HIGH AND LOW CLASS CINCHONA.

IN our issue of October 27 there appeared a letter from Messrs. Zimmer & Co., of Frankfort-on-Maine, the quinine manufacturers, drawing attention to what they consider a source of possible injustice in our market reports, viz. the enumeration of the approximate weight of bark bought at the London auctions by the various manufacturers or their agents, without the collateral mention of the quantity of quinine sulphate represented by that bark. Messrs. Zimmer & Co. made out a very fair case for grievance, especially as concerns their own firm, by pointing out that, whereas they are in the habit of purchasing bark averaging 4 to 5½ per cent. quinine sulphate, other factories usually buy much poorer cinchona, and that therefore the mention of the bulk alone may convey an unjust idea regarding the producing capacities of different factories. We have no hesitation in saying that we fully appreciate the force of our correspondents' remarks, but we cannot quite see how it would be possible to overcome the difficulty to which they allude under the system of private analysis now obtaining in London. Attention has been repeatedly called in these columns to the superiority of the system prevailing at the Amsterdam bark auctions, where the analysis of each lot is printed in the catalogue, thus affording to all a safe guide to the market. This system was introduced in Amsterdam by the Netherlands Trading Company, and it has since been adopted by all the other importers, which alone is strong evidence of its soundness, though for advocating the adoption of this plan by the

London importers we have been foolishly abused and accused of a desire to play into the hands of our Dutch rivals. In time, perhaps, the guiding spirits of the London market may take a leaf out of the Dutch book; but meanwhile it would scarcely be feasible for anyone not a large buyer to analyse every lot advertised for sale, and the only moderately reliable clue to arrive at the standard of the bark sold at the auctions would be to compare the prices realised with what is generally said to be the average unit—a rather time-robbing process to apply to an auction of about 3,000 packages. But with a view to remedy as far as possible any injustice which may have been done to some buyers by our reports, we have prepared a table showing the number of packages and the relative percentage proportions of high and low standard barks bought, so far as we could ascertain, by the quinine manufacturers at the last three public auctions. Taking first the high-class barks, selling at 8*d.* per lb. or higher, and presumably equalling, therefore, from about 4 to 7 per cent. quinine sulphate, we obtain the following results:—

	November 6		October 23		October 9	
	Pkgs.	P. c.	Pkgs.	P. c.	Pkgs.	P. c.
American and French ..	467	46	139	45	173	34
Zimmer & Co. ..	140	14	57	19	29	6
Böhringer & Sons ..	156	15	64	20	159	32
Howards & Sons ..	205	20	2	1	119	24
Brunswick Works ..	31	3	45	15	20	4
Auerbach Works ..	2	—	—	—	—	—
Thos. Whiffen ..	17	2	—	—	3	—

This table shows that, in the last three auctions, the principal buyers of high-class barks were the agents for the French and American quinine makers, Messrs. Howards & Sons, Zimmer & Co., and Böhringer & Sons, while little or no high-priced bark was bought by the Auerbach and Brunswick factories. Next, treating in the same manner the distribution of low-class barks selling at 2*d.* per lb. or less, and therefore probably containing only about 1 per cent. of quinine, we arrive at the following figures:—

	November 6		October 23		October 9	
	Pkgs.	P. c.	Pkgs.	P. c.	Pkgs.	P. c.
American and French ..	8	5	—	—	—	—
Zimmer & Co. ..	8	5	27	21	—	—
Böhringer & Sons ..	—	—	4	3	13	15
Howards & Sons ..	4	2	10	8	13	15
Brunswick Works ..	121	71	2	2	12	15
Auerbach Works ..	26	15	23	66	47	55
Thos. Whiffen ..	4	2	—	—	—	—

From this table it appears that the Auerbach and Brunswick factories took the bulk of low grade cinchonas at the last three auctions, though it must be added that Messrs. Zimmer & Co. themselves purchased a fair share of these on October 23. It is right to point out, however, that we do not claim for our figures more than an approximate exactness. The buyers at the sales, with one or two exceptions, always bid in an undertone or by nodding of the head, and it would sometimes puzzle the most experienced frequenter of the auctions to indicate definitely the allottee of certain lots. Again, in the course of a year or so the proportions may conceivably vary considerably from those given by three auctions only. Bark is sometimes purchased privately between the auctions, and we need scarcely say that so far as the quality of the product is concerned, the standard of the cinchona is no criterion at all. And in justice to factories which may appear small purchasers it should be stated that they are so only because they decline to follow the policy of

what are termed the speculative manufacturers, and that, if more remunerative prices should prevail, they will doubtless again be found to purchase a proportion more in accordance with the undoubted importance of their works.

Women in Pharmacy. A writer in the *Queen* has ascertained and presented to the readers of that paper a few facts which show how far women have up to the present established themselves in pharmaceutical pursuits. He finds "about ten" women pharmacists on the British Pharmaceutical register. Of these five are in business, two in Devonshire, one at Eastbourne, and two in Wales. Some hold hospital appointments as dispensers, and one or two give private lessons in pharmacy. It is recorded that Miss Margaret E. Buchanan obtained the Pharmaceutical Society's silver medal in 1887. The writer has consulted several chemists and druggists, and finds that there are a few objections to women serving as chemists in an open shop, as articles are asked for which it would not be right to request them to serve. Their services might, however, it is said, be well utilised in the preparation of medicines with or without supervision in a private apartment connected with the shop. It is also reasonable that lady pharmacists might become analytical chemists, or public analysts, by proving their competency to act as such. By attaining a very proficient knowledge of botany, they may qualify as botanical teachers in relation to pharmacy. Mrs. Isabella S. Clarke-Keen, in *Atlanta* for February last, states that "one great opening of women pharmacists is in India, where so many of the women doctors are now settling. Women pharmacists should accompany them, for in many instances, in consequence of the present want of women dispensers, the doctors are obliged to dispense their own medicines." The progress of the woman pharmacist idea abroad is also noted. The Russian Government has granted permission for ladies to practise as pharmaceutical chemists, if they pass the examinations. Those pharmacists who receive female pupils are not allowed to take students of the opposite sex during the same period. In Holland there are a great number of young ladies among the assistant pharmacists. In the United States the practice of pharmacy by women is likely to make great headway before long. Miss de Soccaras and Mrs. R. H. Brunner have recently graduated at New York. The number of female physicians in the world is far in excess of women pharmacists. During the next ten years, however, the difference is not expected to be so marked.

Fighting the Examiners. A case of considerable importance has just been decided in Ontario by Chief Justice Sir Thomas Galt. The defendants in the case were the authorities of the Ontario College of Pharmacy, and the plaintiff, R. A. Scarlett, was a young man who served his apprenticeship in Cobourg, and, in June, 1886, went up for examination, passing in prescriptions, pharmacy, and materia medica, and failing in dispensing, botany, and chemistry. In the year following he took advantage of the resolution permitting examination in separate branches, and succeeded in passing in two of the subjects in which he was deficient, but again failed in chemistry. He claimed to have addressed one or more communications to the council on the subject, but that body, like most others, remarks the *Canadian Pharmaceutical Journal*, probably preferred the report of its examiners to the candidate's own self-estimate, and little result followed. The point at issue was whether the young man should get his certificate or not, he alleging, and proving, that two before him had got certificates under similar circumstances; and, as he threatened the council, it was after a considerable interval decided by a majority, and against legal opinion, to grant the diploma. Nevertheless Mr. Scarlett instituted proceedings against the council for withholding the diploma, claiming \$2,000 damages. The case came up for trial on September 26, and Sir Thomas Galt, after hearing counsel, said there was no charge of bad faith or improper conduct on the part of the defendants, the whole complaint being that the diploma had not been granted in 1887 instead of 1888. The case could never go to a jury on the question of damages. Scarlett had received his diploma and that was sufficient. He therefore held there was no case, and nonsuited the plaintiff without allowing him to call a single witness.

OUR BREAKFAST-TABLE AND ITS ADULTERATIONS.*

By A. W. STOKES, F.C.S., F.I.C., Public Analyst to Paddington, Bethnal Green, and St. Luke's.

THE lecturer first thanked the members for so kindly coming to breakfast even at so late an hour. He wished them good appetites for their imaginary meal. As his was the only jaw to be exercised and as the meal was costless he had provided a bountiful fare, the chief constituent of which was *water*. For in this bill of fare, comprising bread, butter, tea, coffee, cocoa, milk, sugar, bacon, chop, steak, mustard, pepper, jam, and marmalade, water in all these formed the largest sum. For instance, in a cup of tea there was 97 per cent. of water; a cup of coffee, 96 per cent.; a cup of cocoa gave 92 per cent. of water, while milk naturally contained 88 per cent. of water. Even a chop consisted of 50 per cent. of water. Bread, too, would be very dry without its 15 per cent. of that necessary ingredient. As for jam, that swelled itself out with about 60 per cent. of moisture.

None the less Mr. Stokes touched but lightly upon that chief constituent of our food, because the President, Mr. E. J. Millard, had already brought that subject very fully and ably before the association. He referred casually, however, to diagrams, such as we are now accustomed to see perambulating our streets, which show the microscopical constituents of good and bad waters, cautioning his hearers to test both classes of water for themselves. The necessity of a pure supply of water was pointed out, reference being made to the often-found close alliance of wells and cesspools in country districts.

"The staff of life"—*bread*—was then dealt with. Its adulterations with alum, sulphate of copper, foreign starches—such as potato, rice, pea, &c.—were described, and the methods of their detection were pointed out. The logwood method of detecting alum and the ammonia method of showing the presence of sulphate of copper were practically demonstrated. The peculiarity of bread being "fresh" only when new-made was referred to and commented on; reference, too, was made to the value of whole meal bread.

BUTTER

came next, and it was shown how it differs from other fats by containing about 7 per cent. of a volatile fatty acid known as butyric acid. It has an average composition of fat 83, water 12, salt 3, and casein 2 per cent. A description was given of the methods of detecting an excessive quantity of water (sometimes purposely left in), or the addition of too much salt. How the difficulty of detecting the fat from the cow's ribs from its "udder fat" has been overcome was explained, and the various processes of taking specific gravity, melting-point, and the separation of fatty acids were dwelt upon. A sample of old butter was handed round to show that in colour, smell, and general appearance it was indistinguishable from rancid tallow. Slight reference was made to the manufacture and sale of margarine.

TEA

next engaged the attention of the audience. Its method of growth and preparation were illustrated by some beautiful Chinese paintings made on rice paper by native artists. The properties of its constituents, including the alkaloid theine (found also in coffee, and known there as caffeine), were enlarged upon. Mr. Stokes pointed out the facing of the green leaves, to give them a better appearance, with Prussian blue and silicate of magnesia, and the microscopical method of detecting this. The characters of foreign leaves and of exhausted tea leaves, as well as those of "Lil tea" (containing iron-sand) were described. Experiments to detect the presence of tannin or of iron were performed. Incidentally it was noticed that tea in the seventeenth century was sold in England for from 5*l.* to 10*l.* per lb., and that Parliament levied a duty of 1*s.* 6*d.* per gallon upon its infusion, which tax was afterwards changed to a duty of 5*s.* per lb. upon the dry tea. No regret was expressed at the failure to obtain a demand for the compound of tea and spirits known as "Robur" brought out a few years ago. Tea-making and tea-tasting

were noticed. One tea-taster said that in the late busy tea season he had tasted as many as 530 samples in one day.

IN REGARD TO COFFEE

its constitution was referred to, as well as its growth and preparation. It has a variety of adulterants, such as chicory, dates, figs, acorns, roots of dandelion, turnip, wurzel, &c., all of these being first roasted and then ground. Chicory is, however, the most frequently found adulterant; samples advertised as "French coffee, prepared by a patent process, whereby the aroma, &c., are preserved," are usually heavily adulterated, the "patent process" being the addition of 60 to 70 per cent. of chicory. The lecturer described how a customer might be deceived even when he saw his coffee ground in the shop before his own eyes, either by some chicory being already in the mill or by chicory moulded into the shape of coffee-berries being mixed with the unground coffee. The simple test of coffee floating on and not colouring water, while chicory sank in the water and coloured it, was exhibited, and the scientific methods of discovering the amounts of the various adulterations were duly expatiated on.

COCOA.

As the only really nourishing beverage, except milk, met with a description of its source and preparation. It was shown to contain half its weight of a peculiar fat of high melting-point, known as cocoa-butter. This fat is very useful because, unlike other fats, it does not get rancid on keeping. It is largely used as a constituent of the cream of chocolate-creams, for pessaries and for pharmaceutical preparations. Like tea and coffee, cocoa possesses an alkaloid (theobromine), similarly, too, it contains a quantity of a tannin compound. Strange to say, almost all of the favourite beverages taken to by men are of an astringent (tannin-containing) character. The large proportion of fat present in cocoa prevents its use by many people; hence samples from which most of the fat has been extracted, find a ready sale. In other cases not only is most of the fat taken away, but arrowroot or sago and sugar are added in large quantity. Such samples form a pasty mass when boiled with water, in fact "thicken in the cup." They are frequently known as homeopathic cocoa, and some of them possess so little cocoa as to form merely a species of gruel. Luckily, the microscope, the proportions of fat and of phosphates are means whereby the adulterations can be estimated.

MILK,

upon which, for a year at least, all of us have had to depend for sustenance, came next in order. It is unique as a *sole* supporter of life, having for its few constituents water, fat, casein, sugar, and mineral-salts. Further still, according to the lecturer's views, milk, or rather milk-sugar, is to the homeopathic believer in globules the *sole* medicine. Though baptised with pretty names ending in "us" or "a," chemical analysis can detect in all the "globules" only milk-sugar. Milk, which supplies food to all, and medicine to some, Mr. Stokes reminded his audience, was the most adulterated article we meet with. The legendary sheep's brains were too dear when water is so plentiful and cheap, obtained, as it has been, from pump, horse-trough, or holy-water font. Chalk is mythical, but skimming is only too real. How to detect these by the various processes of Wanklyn, Loxhley, Adams, Schmid, &c., was described, and the apparatus produced. The unreliability of lactometers and lactoscopes was pointed out. The various milk preparations in use, such as Koumiss, Keff, peptonised milk, artificial human milk, &c., were adverted on. By the kindness of Messrs. Welford & Sons, of Elgin Avenue, samples of most of these were on hand for the audience to taste for themselves.

SUGAR

is found in many plants, but is commercially obtained mainly from the sugar-cane, beet, and maple. It is the purest and least adulterated of our foods. Considering the labour needed, and the distance from which it comes, it is also the cheapest. The process of refining sugar by the use of bullocks' blood, charcoal, &c., was described. The colour produced by melting sugar in a flame was once thought evidence of its being adulterated with blood. Diagrams and slides of the little parasite, the *acarus saccharinus*, found in

* Abstract of lecture given November 8, 1888, to the Chemists' Assistants' Association.

raw sugars, and supposed to produce the "grocers' itch," were displayed. A demonstration was given of the reducing action of sugars on copper solutions. Sand was shown to be an unknown adulterant of sugar. The more solid adjuncts to the breakfast-table consisting of a rasher of bacon, a chop, or steak received a few words, in which the necessity of seeing that these were in a healthy state, free from parasites, and properly cooked, was insisted on.

Slides and diagrams of parasites, such as the tape-worm and trichina spiralis, were on view; of the latter pest no fewer than 28,000,000 were computed to be present in the body of a child killed by eating infected pork.

ADJUNCTS.

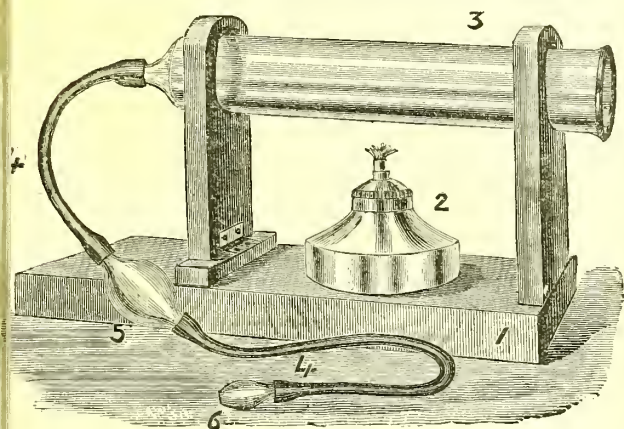
Mustard was experimentally shown to be chiefly adulterated with flour and turmeric. Pepper has for its adulterants sand, rice, olive-stones, spent ginger, &c; samples of these were produced and their detection explained. Jams and marmalade received a passing glance.

After a few remarks upon the relations which should exist between druggists and public analysts, the lecturer brought to a close his rapid sketch of the more obvious characters and adulterations of the food of our breakfast-table.

Notes of Nobelties.

CHLORIDE OF AMMONIUM INHALER.

In our report of the Annual Museum of the British Medical Association we briefly described an inhaler which has been designed by Dr. P. W. Maxwell for the generation of neutral fumes of ammonium chloride. Since that time an improvement has been made on the apparatus whereby a superabundance of the vapour is entirely obviated, and the inhaler is made practically perfect. The construction and method of using the apparatus will be seen from the figure. 1 is a



wooden stand with hinged uprights, which can fold down for convenience in packing; 2 is a spirit lamp for heating the powdered ammonium chloride, which is placed in the glass cylinder (3) in order to generate fumes; 4, 5, and 6 form the inhaling-tube, 5 constituting the improvement which obviates superabundance of fumes. It consists of a glass bulb filled with glass-wool. In using the apparatus all that is necessary is to place 10 to 15 grains of ammonium chloride into the cylinder with a spoon provided for the purpose; the lamp is then lighted, and the patient inhaling draws the perfectly neutral vapour into the lungs. The simplicity of this apparatus, its capability of affording a neutral vapour without the use of corrosive liquids or wash water, and its remarkable cheapness are likely to make this inhaler a favourite. It is well made, packed in a box which has room

for bottles of ammonium chloride and methylated spirit, and is placed on the market by Messrs. Anderson & Adams, of Dublin.

SACCHARINATED GRANULAR PREPARATIONS.

In our Irish correspondence a fortnight ago mention was made of a granular saccharin which was being sold by a firm of wine merchants. Messrs. Goodall, Backhouse & Co., Leeds, in reference to this remark, have sent us a sample of a granulated citrate of magnesia prepared with saccharin, which they introduced last summer, to show that the Irish article is not the first successful attempt to present saccharin in a granulated form. Messrs. Goodall's preparation should be valuable to persons who desire a pleasant saline draught and cannot take sugar.

MARRIAGE.

[Notices of Marriages and Deaths are inserted free if sent with proper authentication.]

BLAMEY—EASTLAKE. — November 2, at St. Andrew's Church, Plymouth, by the Rev. B. B. Liptrott, Edward Parr Blamey, chemist, Devonport, to Mary, eldest dau. of Joseph Eastlake, Plynt Cottage, Truro.

DEATHS.

FAIRLIE.—In our issue of October 27 we briefly recorded the death at Jacksonville, Florida, of Mr. James Mitchell Fairlie, late of Glasgow. Mr. Fairlie died on October 16 a victim to yellow fever. A peculiar and sad circumstance in regard to this announcement is that we are in receipt from Mr. Fairlie himself of a notice of the death of Mrs. Fairlie on October 5, also a victim to the dreadful scourge. Mrs. Fairlie was in her 45th year. When the epidemic broke out Mr. Fairlie urged his wife to take the two younger children down to Mayport or Pablo, and remain there until the fever was over, but she steadily refused to leave her home, fearing that her husband would be attacked with the fever. Mr. Fairlie, it appears, had thrown himself with characteristic vigour into the various organisations founded for the abatement of the epidemic, and was working strenuously for the relief of the sufferers. Indeed, the same afternoon that he buried his wife he was elected an honorary member of the Jacksonville Press Club, formed amongst pressmen for the purpose of "assisting each other in case of sickness during the epidemic, and to take steps to help the families of those of the profession who had lost their lives while at the post of duty." Mr. Fairlie since his establishment in Jacksonville had been very successful with his pharmacy, and took a leading part in the trade of the city. He was one of the founders of the Florida State Pharmaceutical Association. One of his four children was ill of the fever when Mr. Fairlie died; the two eldest, Margaret and John, are living in Albany, N.Y., and have thus escaped the scourge.

HALEY.—On October 31, Mr. Richard Haley, chemist and druggist, of 38 Great Hermitage Street, Wapping, London, E.; thirty-seven years in business in that parish; deeply regretted by a large circle of friends.

TUSON.—On November 1, at Erith, Richard Vine Tuson, F.I.C., F.C.S. (Professor of Chemistry at the Royal Veterinary College, London), aged 56. Professor Tuson was well known among chemists as the last editor of Cooley's "Cyclopædia," as the author of "Tuson's Veterinary Pharmacopæia," and as the inventor of several disinfectants which are sold under his name.

WALLACE.—At Glasgow, on November 5, William Wallace, Ph.D., F.C.S., &c., analyst to the city, aged 56. For a number of years Dr. Wallace was assistant to the late Professor Penney, of the Andersonian University, and thereafter he was appointed lecturer to the Mechanics' Institute, now the College of Science and Arts. In 1870 he entered into partnership with Mr. Tatlock and Dr. Clark, analytical chemists, and in 1874 he was appointed public analyst for the city of Glasgow, a position which he has filled with much acceptance.

THE MATERIA MEDICA OF CEYLON.

PHARMACY in the East was in ancient times practised by the priesthood, and this was the case long before any system of a materia medica was reduced to writing. Ceylon possesses what is believed to be the oldest work on pharmacy in the East; it was compiled by one of the ancient sovereigns of that country a century or two before the Christian era, and at the present time it continues to be consulted by village practitioners, who are, however, in most instances incapable of distinguishing between what is useful in its contents and what is simply worthless. Its royal author, who found time to study the medicinal properties of indigenous roots, herbs, and gums, not only acquired a practical knowledge of all these things, but applied that knowledge personally in hospitals and dispensaries erected by him at considerable cost in his capital. In the suburbs of that ancient city there were formed botanic gardens in which the most useful herbs and plants were grown for hospital use. In the record of the materia medica of that day prepared by the sovereign of Ceylon there were many articles named not known at the present time, whilst a good number of those mentioned in it are known to be of very questionable value; but neither is there any doubt that this "king's book" made reference to plants and drugs the use of which has in the present day been adopted not only by the educated burgher practitioners of Ceylon with the greatest advantage, but by European members of the profession in the treatment of diseases prevalent in that country.

The native practitioners, who continue to practise on the old lines of the *vederales*, rarely employ powerful or hurtful remedial agents, being content to relieve the patient by means of emetics and purgatives, assisted by an extremely low diet, so that, whilst often failing to effect a cure, they rarely cause mischief. Better trained and more intelligent Singhalese doctors adopt a system not very dissimilar to modern European treatment, trusting a good deal to nature for efforts to restore health, whilst placing the patient under the most favourable conditions for recovery by means of suitable diet. There is no doubt that, although worthless mixtures are often employed by ignorant native practitioners, the materia medica of Ceylon will compare favourably in some respects with the pharmacopœias of Western nations.

In the native materia medica, as formulated in their books, there are a large number of plants declared to be remedies for snake-bites, but experiments carefully and repeatedly made by European practitioners have demonstrated the worthlessness of these supposed remedies; and an experienced local medical writer on this subject has declared that no antidote for the poison of snakes has yet been found in the vegetable kingdom, though it is not improbable that in the natural order of Aristolochiaceæ such may be discovered.

The Ceylon Court of the Colonial and Indian Exhibition in 1886 contained a collection of nearly four hundred drugs indigenous to that island, found chiefly in the hill districts, but not nearly representing the entire materia medica of the island. They had been collected by Dr. Trimen, Director of the Royal Botanic Gardens at Kandy, who described them in a catalogue from information furnished by native village *vederales*. In the descriptive catalogue of that court the compiler felt bound to admit that the uses of these remedies must not be supposed to be based on any real properties in a large number of cases; much is traditional, in the same way as, in the middle ages and up to the seventeenth century in Europe, numerous plants which are known to be quite inert were credited with virtues on the authority of older writers and astrologers.

Amongst the medicinal products of Ceylon the "BELI" or "BAEL FRUIT" (*Egle marmelos*), well known in this country as a remedy in cases of diarrhœa or dysentery, especially when the attack is accompanied by fever; but native medical books and *vederales* attribute to the root, leaves, and bark of the bael tree qualities as febrifuges to which they are certainly not entitled. It is the practice with many practitioners in Ceylon to boil the unripe fruit, and afterwards bake it under hot wood ashes; others employ the soft pulp of the ripe fruit in its natural state. When it is intended to be kept in store for any time, or exported,

the fruit is gathered before being fully ripened, cut in to thin slices, and dried thoroughly in the sun before being packed for removal. As this tree grows readily in almost any soil in high or low districts, and needs no kind of cultivation, it might be propagated to any extent with a view to a larger trade in the dried fruit.

"KOTHOMBA BARK" (*Azardirachta indica*).—The bark of a tree common in the maritime districts of the island, employed in the form of infusion with much success as a febrifuge, the patient being at the same time kept on extremely low diet, almost to starvation-point. The fruit of the tree is said to possess purgative properties, whilst an oil made from the seeds is applied externally in cases of rheumatism. In rheumatic affections the bark of the "KANATA" (*Careya arborea*) and of the "DAMBA" tree (*Calophyllum inophyllum*) are both employed with some success in infusion.

In cases of diabetes an infusion of the leaves of the "RANACONDR" (*Cassia auriculata*) is employed very generally, and with good results. It is extremely useful in allaying the parching thirst which invariably accompanies the disease.

The woody stem of the "WENI-WEL" (*Coscinium fenestratum*), infused, forms an excellent tonic and febrifuge, and well dried in the sun has been exported to Europe. It has also been found to possess considerable antiseptic properties—meat steeped in the infusion keeping perfectly fresh for several weeks. A strong infusion is employed by native mat-makers for dyeing their wares a bright yellow.

The "ATANA" (*Datura fastuosa*) is a species of thorn-apple, possessing in its leaves and seeds therapeutic properties similar to those of belladonna, and which are contained in the active principle, *daturin*. The dried leaves are rolled into the form of cigars, and in cases of asthma smoked with good effect. It is a very common plant in most of the districts in the interior, where it thrives in thin, poor soil, and might, therefore, be extensively grown.

The "NIYANGALA" (*Gloriosa superba*), a very poisonous plant, and known as such from olden times, being mentioned in the most ancient work on medical subjects, is a wild, quick-growing climbing plant, having a pretty variegated flower; all parts of it—root, leaves, and seeds—are equally poisonous. It is employed by Singhalese women to procure abortion, and also for suicidal purposes.

The "IRAMUON" (*Hemidesmus indicus*), or Indian sarsaparilla, a freely-growing creeping-plant, is indigenous to the low country of Ceylon, where it is found very plentifully in all light soils remote from cultivation. Its long tenacious root and stem have an aromatic and slightly bitter taste, alterative, diuretic, and diaphoretic. A decoction of the root is prescribed with decided success in syphilis, rheumatism, and diseases of the blood. The plant might be collected and dried for export in considerable quantities.

The "GAMMAHE" or Ceylon Kino Tree (*Pterocarpus Marsupium*) yields gum kino from its soft fleshy bark in fair quantity. The tree grows freely in the poorest soil, and might be very extensively propagated by the village population, and a considerable trade in the article created at a low rate.

The "SAMADORA" (*Samadorea indica*).—The wood of this tree is an excellent substitute for quassia; an analysis has shown that it contains more of the active principle *quassin* than the ordinary quassia of the drug market. It can be grown in any description of soil.

"GODA-KADURA" (*Strychnos nuxvomica*).—The nuxvomica plant of Ceylon is a free grower and capable of being largely propagated. A sample of the seed examined by Prof. Dunstan yielded 1.14 per cent. of *strychnine* and 2.60 *brucine*. The plant is very abundant in Ceylon, and at present only one or two small shipments have been made to Europe. Analyses of the seed more recently made show the proportion of *strychnine* to range from 1.15 to 1.73, and of *brucine* from 2.86 to 3.63.

That a considerable drug export might be made from Ceylon to Europe with advantage is beyond doubt, and as all the medicinal products mentioned above grow abundantly, without any attempt at cultivation, in districts where native population exists large, they could be collected, prepared, and shipped at a moderate cost. The product of the cinchona tree, now so largely exported from Ceylon, has not been included in the above list, it not being indigenous to the island, but introduced and cultivated almost exclusively by European planters.

Trade Report.

Notice to Retail Buyers:—It should be remembered that the quotations in his section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., November 8.

A FAIRLY good business is reported this week in all departments; prices all round, especially of chemicals, tend to improve, and a healthy tone is prevailing generally. Among drugs we have to report an improvement, though in most cases a slight one, in guinea grains, Calabar beans, castor oil, chamomiles, and essential oils of cassia, star-anise, cloves, lavender (French), rosemary, and spike. The cinchona auctions, both in London and Amsterdam, show some slight improvement; opium, cod-liver oil, and cascara sagrada are firm, but orris root, quillaya, and citronella oil (for forward delivery) are selling at some reduction. Heavy chemicals are, generally speaking, very firm. Soda crystals have advanced in price, while bleaching powder, caustic soda, bicarbonate of soda, and ammonia sulphate are very firmly held. In fine chemicals several alterations have occurred. Quinine is anything but firm, and mercurials may probably experience some alteration after the expected official alteration in the price of quicksilver. Acetic acid has been reduced in price, but citric and benzoic & toluol are notably dearer. Bromide of potassium, glycerine, camphor, morphia, gallic acid, and tannic acid are very steady, but the price of sulfonal has been materially altered. In druggeries there are not very many changes. Shellac is irregular, closing with some improvement on the prices mentioned in our last report, but at a decline as compared with what was paid before the auctions. Gum arabic is dull, gum kowrie dearer. Cutch and China galls are advancing, but black gambier shows some weakness. Palm oil and petroleum are notably better. Spices are generally dull, excepting cloves, which continue to advance; but pepper is slow of sale, and cassia lignea, mace, pimento, and cassia buds are easier. Cocoa butter commands better prices, and the tea market is steady.

THE BOARD OF TRADE RETURNS.—The figures relating to our foreign trade in the month of October fully compensate for the slight check in the flow of progress which was apparent in the returns for the previous month. Our total imports during October increased in value, as compared with October, 1887, to the extent of about 15 per cent., viz. from 30,550,307*l.* to 35,022,135*l.*, the improvement being principally apparent in duty-free articles of food and drink, metals and raw materials for manufacturing purposes. Our exports have increased all round, the total shipments of British and Irish produce to other countries being valued at 20,893,508*l.* last month, against 18,736,201*l.* in October, 1887, or an advance of, say, 11½ per cent., the bulk falling to the share of machinery, yarns, and other manufactured goods, including chemicals and drugs. The re-exports of foreign and colonial produce increased by 10 per cent., from 5,340,977*l.* to 5,865,419*l.*

QUININE IMPORTS IN TURKEY.—In consequence of repeated complaints regarding the alleged fraudulent practices of certain quinine importers in Turkey, who are accused of systematically opening quinine in bottles and adulterating it to a large extent, the Director of Customs in Turkey has ordered his customs officers to place an official band or label over the corks of all quinine bottles examined by them. A charge of about ¼*d.* per bottle is made for this.

It is rumoured that at least one of the firms who went so baldheaded into the cascara sagrada boom will have cause to regret the confidence which it has rashly placed in the

reports of its agents in the "producing districts." That firm, when the drug first began to move upward, is said to have astonished its competitors by its persistent offers below the market rates, while at the same time it freely advised buyers not to neglect the opportunity of laying in stock, but to take at the flood the tide which was leading on to fortune. One of its undersold competitors—thus the story goes—quietly instructed a correspondent to buy up these cheap lots, with the result that the undersellers are now called upon to provide the large quantities of the drug which they contracted to deliver to their own competitor's agent. But it appears that the selling house has been disappointed by its local agents, and now finds itself in the awkward position of having to confess that it does not possess the goods which it has agreed to furnish; while at the same time it has, by its own advice to buyers generally, assisted in advancing the market price to five or six times the amount at which it stood a few months ago.

QUININE FOR THE MILLION.—Mr. Rivers Hicks, who is the gentleman alluded to in the paragraph under this head which appeared in last week's issue, asks us to state that his offer to supply quinine "direct to the consumer" applies only to such places in India and the East as are beyond the reach of ordinary trade influence. In all other places Mr. Hicks purposes to sell through wholesale firms, and negotiations are now pending for the introduction on a large scale of "penny quinine" through the medium of such firms.

CHEMICALS IN THE NORTH OF ENGLAND.—Our correspondent writes that the market in all departments has been very quiet since his last report, and that no quotable alteration has occurred in the price of any of the staple articles.

THE BLEACHING POWDER CONVENTION.—The makers of bleaching powder met at Liverpool a few days ago, and decided to prolong the existence of their Association, which practically includes the whole of the makers of bleaching powder in the United Kingdom. The agreement will be continued in future from month to month.

ACIDS.—*Citric* has been a good deal steadier this week, though business does not seem to have been large. On the spot 1*s.* 6*d.* to 1*s.* 6½*d.* is the quotation. *Tartaric* dull at 1*s.* 4½*d.* to 1*s.* 4¾*d.* per lb. for foreign, and about the same price for English. *Gallic* and *Tannic* acids very firm. *Oxalic* firmer at 4*d.* per lb. *Benzoic*: In consequence of the advance in the price of hydrochloric acid in Germany, makers of benzoic acid from Toluol in that country have advanced their quotation to 1*s.* 11*d.* per lb. for bulk. *Acetic acid*, on the other hand, has been reduced in sympathy with the lower quotations for acetate of lime in America. B.P. 33 per cent. is now 20*s.* per cwt. *Carbolic*, crystals in 1 lb. bottles, and liquid in bulk, are offering at 1*s.* 4*d.* per lb.

ANISE.—*Star anise* remains scarce in London, and quotations are nominal both here and in China.

ASHES.—The supplies of best Montreal *Potashes* is small and prices are gradually rising, 25*s.* 6*d.* to 26*s.* per cwt. having been paid. *Pearlashes* are rather inanimate at 39*s.* to 40*s.* per cwt.

BLEACHING POWDER is firmly held at 8*l.* 10*s.* here and 7*l.* 13*s.* 9*d.* on the Tyne.

BORAX.—There has been rather more demand since last week, and it is doubtful whether second-hand parcels could now be obtained under 29*s.* per cwt. In Liverpool *Californian* borax has been advanced to 32*s.* net cash by the principal holder. *English* refiners quote 30*s.* to 31*s.* per cwt. On the Italian markets *Boracic* acid is quite neglected.

BROMIDE OF POTASSIUM remains firm at 1*s.* 5½*d.* to 1*s.* 6½*d.* per lb., a fair business being transacted in it.

CALABAR BEANS, following the tendency of most produce from the Guinea Coast, are higher in price, 5½*d.* to 6*d.* per lb. being readily obtainable.

CAMPHOR—The market for *Crude* is stagnant, but the collapse of the article in the States has not much influenced

our holders, who still ask from 105s. to 110s. per cwt. for Japan on the spot. *Refined* is firm on the basis of 1s. 4d. per lb. for bells.

CASCARA SAGRADA.—The price is 10*l.* per cwt.

CASSIA BUDS.—Quotations from China are 2s. lower this week, and speak of 44s. per cwt. c.i.f.

CASTORUM.—The Hudson's Bay Company have received their usual autumn consignment from Canada, but the date for their auction is not yet fixed.

CHAMOMILES.—There are scarcely any fine flowers to be had on the spot, and for medium quality 90s. per cwt. is required.

CINCHONA.—At Tuesday's periodical auctions a moderately heavy quantity was offered, consisting of

	Packages	Packages
Ceylon bark	1,935 of which 1,798 were sold	
East Indian bark	567	525
Java bark	49	31
South American bark	1,284	919
Total	3,835	3,273

It will thus be seen that a far larger proportion of the total quantity offered was sold on this occasion than is usually the case, and this applies specially to South American barks, large parcels of cultivated *Cali-aya* quills and a good many lots of *Cuprea* bark being readily disposed of. The average quality of the barks shown was decidedly good, more particularly as regards East Indian cinchonas, and in quite a number of parcels sold at prices ranging between 7*d.* and 10*d.* per lb. At first there was a kind of indecision among buyers, but as the auctions proceeded the tone grew firmer, and the general result of the sale is a slight advance on the preceding one, the consensus of opinion placing the unit at fully 2*d.*, occasionally reaching 2½*d.*

The following are the approximate quantities of bark purchased by the different quinine manufacturers and their agents:—

	Lbs.
Agents for the Auerbach quinine works	142,979
„ Messrs. Böhlinger & Sons	133,391
„ the American and French works	118,516
„ the Brunswick works	79,368
Messrs. Howards & Sons	59,249
Agents for the Jobst & Zimmer works	55,301
Mr. Thos. Whiffen	20,436
Sundry buyers	7,832
Total quantity sold	617,072
Bought in or withdrawn	94,498
Total offered	711,570

SOUTH AMERICAN BARK.—Of 659 packages *Calisaya* quills, from the Bolivian plantations, only 26 packages remained unsold, the rest realising from 9*d.* to 10½*d.* per lb. for rather broken partly good silvery quill, and 5½*d.* to 9*d.* per lb. for damaged ditto. *Cupreas* very nearly made up the rest of the supply, and were partly disposed of at pretty steady figures, from 2*d.* to 4½*d.* for old parcels of rather poor appearance. For other parcels of old import, 4½*d.* to 5*d.* per lb. is required, and a newly-imported parcel is held at 3½*d.* per lb. A few serons *Soft Colombian* bark imported in 1880 are held at 2½*d.* per lb.

CEYLON AND EAST INDIAN BARK.—Nearly the whole of these barks were sold, the best prices being realised for parcels imported from Madras and Calicut. *Ledgeriana*, chips, rather small, mixed to medium, 2½*d.* to 5*d.*; good to fine bright stem chips, 6*d.* to 8*d.*; shavings, 5*d.* to 5½*d.*; root, very dusty to fine rich, 1*d.* to 10*d.*; renewed, poor to good shavings, 5*d.* to 8½*d.*; fine ditto, 9*d.* to 11*d.*; bold branch chips, 1s. 1*d.*; original chips, 1s.; strong, but dusty chips, and good renewed siftings, 1s. 1*d.* to 1s. 2*d.* (in large quantities); one lot of very fine chips, 1s. 4*d.* per lb.; *Succirabra*, dust, 1½*d.*; common branchy to good stem chips, 2*d.* to 5½*d.*; shavings, ordinary dull to very rich, 3*d.* to 1s.; root, common to good, 1*d.* to 4*d.*; fine lots, up to 7*d.*; dull dusty shavings, 1s.; four cases of medium to bold stout silvery druggists' quill, 1s. 11*d.* per lb. (the highest price realised in the sales); and ordinary broken quill, at 6*d.* to 7*d.* per lb.

JAVA BARK.—The supply was a very poor one, and about 31 cases chips were disposed of at prices ranging from 2½*d.* to 5*d.* per lb. It is pointed out that the direct shipments of cinchona from Ceylon to the United States have fallen from 554,430 lbs in the season 1885-6 to 392,027 lbs. in 1886-7, and 100,980 lbs. in 1887-8, and the reduction is said to be caused by the stoppage of one of the American quinine works. The falling-off in the exports to some Continental ports, such as Antwerp, Rotterdam, Amsterdam, Bremer, during last year and former seasons, is probably due to the high rates of freights to these places, which were greatly in excess of those to London. But, on the other hand, large quantities of bark passed London in transit only on their way to Germany. The following information concerning "Peruvian bark" is given us in the October Board of Trade returns:—

	1886	1887	1888
October			
Imports	9,700	11,378	9,213
Exports	47,390	47,792	35,261
Imports	11,177	10,556	10,297
Exports	42,558	29,778	24,764
January to October			
Imports	118,796	125,030	121,445
Exports	635,570	585,419	458,560
Imports	91,412	116,012	103,487
Exports	436,133	440,146	284,625

COCAINE.—German manufacturers have reduced their quotation to 18s. 6*d.* per oz. for bulk.

COCOA BUTTER.—A further advance was realised at Tuesday's public sales, when 250 2 cwt. cases of *Calbury's* brand (A) sold at 1s. 3½*d.* to 1s. 3¾*d.* per lb.

COLOCYNTH.—The importers of *Turkey* apples are inclined to ask more money, and predict higher prices during the winter.

CREAM OF TARTAR remains quiet but steady at 107s. per cwt. for first white powder.

CUBEES.—Some business is said to have been done at 26*l.* per cwt. for fine quality, but we have reason to believe that that price could be shaded.

CUTCH.—Since our last report a moderate business is talked of, among the transactions being *Star B* at 33s. spot, and 28s. 6*d.* January-February shipment. *RS* tablets at 26s. and *Eagle* at 26s. 6*d.* At the auctions only 175 boxes were offered and all bought in at nominal rates. At Liverpool some slight concessions have been made by the importers and a moderate business is reported at 32s. to 32s. 3*d.* per cwt. for *Engine* and *double Elephant* brands, 31s. 3*d.* for *BB Flag*, 28s. to 29s. 6*d.* for *Cock*, 25s. 6*d.* to 26s. 9*d.* for *RS* in block and tablets, and 25s. 6*d.* for *Bull*.

GALLS.—We understand that a floating parcel of China galls, near at hand, has been sold this week at the rate of 58s. 6*d.* per cwt. c.i.f., but cables from China continue to announce higher rates, though up to date the new season has not opened yet at Canton. A price equalling 66s. per cwt. c.i.f. is spoken of as likely to be the opening quotation.

GAMBIER.—On the spot *Block* gambier has remained steady with sales up to 29s., but for forward delivery lower prices have been accepted, from 26s. 6*d.* for September-October down to 24s. for December-January.

GLYCERINE firm at 65*l.* to 70*l.* per ton for double distilled s.g. 1.260, according to brand.

GUINEA GRAINS.—Advancing, the inquiry being good, and supplies rather restricted. Up to 33s. per cwt. has been paid on the spot and for arrival.

GUM ARABIC.—Large quantities of East Indian gums, mostly of common quality, are offered at every opportunity, and some have become practically unsaleable, but for fine gums, serviceable as substitutes for *Turkey* arabic, extreme prices are obtainable. To-day the auctions comprised 2,540 packages, of which more than nine-tenths were East Indian gums, but the bulk was bought in; good and fine *Amrad* only, which privately also has been in good request, selling at full rates, viz., 5*l.* to 6*l.* 15s. per cwt. Fair amber realised 85s.;

ordinary and small to fair but dark glassy, 35s. to 47s. 6d.; pale dust, 42s. 6d. to 45s.; pickings, 33s. to 39s.; *Ghatti*, good to very fine pale, 61s. to 6l.; ordinary dark to fair glassy, 21s. to 42s.; pickings, 15s. 6d. to 22s.; *Aden*, good pale sorts, brought 6l. 10s.; *Australian*, dark glassy and partly blocky, 35s. to 44s.; *Egyptian Amrad*, fine soft pale, 6l. 12s. 6d. to 6l. 15s.; fair sorts, 86s.; fine siftings, 74s.; *Cape*, fine pale, 8l. 7s. 6d. to 8l. 17s. 6d.; brownish sorts, 90s. per cwt. The following is the position of the article in Liverpool:—Business in *Egyptian* descriptions, owing to very light stocks, has been comparatively trifling, and consists of ordinary to very fine Amrad at 85s. to 150s., with a few casks Ghezira siftings at 73s. per cwt. Of *Brazilian* gums the available supplies are now very small, 50s. to 67s. 6d. per cwt., according to quality, is being paid. *Senegal* gums are firmer, 175s. per cwt. being paid for Bas du Fleuve.

GUM KOWRIE.—About 2,000 cases of this article, offered at to-day's auctions, were nearly all sold at an advance of 3s. to 4s. per cwt.

MORPHIA firm at 4s. 6d. per oz.

MUSK.—There have been no direct imports from China yet, so far as the official customs returns show, only a case *via* Calcutta.

OIL (CASTOR).—Holders in Liverpool have been able to effect for her sales at full prices, the spot quotations there closing at 3½d. for second *Calcutta*, 2¾d. for *Madras*, and 2½d. to 2¾d. for *Bombay*. The statistical position of the article at Liverpool appears favourable, the figures being:—

	1888	1887	1886
	Cases, &c.	Cases, &c.	Cases, &c.
Imports, Jan. 1—Oct. 31 ..	23,942	26,416	34,895
Stock on Oct. 31 ..	733	2,306	1,916

The London market remains firm at 4d. to 4½d. per lb. for finest *Calcutta* and *Italian* oil.

OIL (COCONUT) firm at 26l. to 27l. 10s. for good to fine *Cochin*, and 25l. 5s. to 26l. for *Ceylon* ditto.

OIL (COD-LIVER).—There is no change in the article at present, and prices vary according to the views which the holders take of the market from 68s. 6d. to 75s. per barrel for finest *Norwegian* non-freezing oil, London terms.

OILS (ESSENTIAL).—*Star-anise* is quoted dearer from China per cable, 5s. 11½d. c.i.f. being asked, and the article is said to be scarce. *Cassia* oil is also reported (by cablegram) in short supply, and no reliable quotation can be given. *Clove* oil has again been advanced in sympathy with the spice, and is now held at 5s. to 5s. 6d. per lb., according to quality and brand. *Citronella* still remains dull at ¾d. to 1½d. for native brands on the spot, but late last week lower prices were accepted for forward delivery, viz., 51s. 6d. per case, steamer shipment, October-December. *Lemongrass* is worth 1½d. to 2d. per oz. on the spot. *Mitcham* oils dull, but some holders of *Lavender* are asking extreme prices, double the ordinary figure being talked of. In *Italian* oils there is nothing new. Fine *Nang-ylang* is said to be scarce on the spot, but common qualities are still abundant. In the South of France *Lavender* is still advancing rapidly, and as the next crop is not due before August, 1889, much higher quotations are looked for. Oil of *Spike* also is running up, at a quicker rate even than the *lavender*, and *Rosemary* is likewise in short supply; but of *Thyme* a larger quantity than usual has been distilled this summer. *American Peppermint* steady at 14s. 3d. to 14s. 6d. per lb. for H.G.H.

OIL (OLIVE).—Firmly held at 35l. for *Mogadore*, 37l. for *Spanish*, and 36l. 10s. for *Messina* oil. Reports from Naples dated October 31 state that fine weather has prevailed during the greater part of the second half of October, and although it has come too late to benefit the olive crops at Gioja and other coast districts, it has evidently arrested the injury in the province of Lecce; and the present prospects are for about one-half of a full yield of excellent quality at Gallipoli, Taranto, Brindisi, and Rossano, provided the weather continues favourable until the olives are gathered. These improved prospects have had no influence on our prices, as Naples and other Italian consuming markets are bare of common oil; but there has been an active demand for the better descriptions of Gioja, which has enhanced the value of prompt oils by 10s. to 20s. per tun. Reports from

Leghorn announce falling markets, it having been now ascertained beyond doubt that the crop will be a very large one.

OIL (PALM) dearer, with a steady trade, 26s. 6d. for fine *Lagos*.

OPIMUM.—The Smyrna market, on October 26, remained very active, with important operations, at rather higher figures, especially in the cheaper varieties. In London a very moderate business is doing in all varieties, except *Persian*, which is in request at full rates.

ORRIS ROOT.—In Italy prices have again declined, the supply, especially of the better classes of root, being found to exceed demand. Fine selected *Florentine* root is now held at 45s. per cwt. nominally, while small dark root is quoted at 34s. per cwt. For *Veronese* orris root from 23s. to 26s. per cwt., according to quality, is required.

QUICKSILVER.—An alteration in price would not be unexpected, the principal importers' quotation being nominal at 9l. 10s., while second-hand holders have gradually fallen down to 8l. 15s., though they close a little firmer at 8l. 16s. 6d. per bottle. The Board of Trade returns for October show the following results for that month:—

	1835	1887	1888
	Lbs.	Lbs.	Lbs.
Imports ..	91,075	97,327	48,439
Exports ..	190,545	323,993	99,923

QUILLAYA.—This article has become dull of sale, 13l. 10s. per ton being the nearest spot price for quantities, but lower values rule for forward delivery.

QUININE.—There is no alteration in the makers' quotations, but second-hand holders have shown much more willingness to sell this week, and now offer German bulk at 1s. 4¾d. on the spot, and 1s. 5d. per oz. forward. Transactions have been very small this week. The imports of quinine into the United States, which early in the year showed a great falling-off compared with 1887, have recently been rather heavy. In the period from January 1 to October 23 they were 1,519,275 oz., against 1,682,886 oz. in the corresponding period of 1887.

SEED LAC.—Forty-nine bags fair to good bright *Bombay* sold at 34s. 6d. to 36s. per cwt.; more or less blocky ditto, 23s. to 34s. per cwt.

SHELLAC.—Under the influence of renewed alarmist reports from Calcutta speaking of great difficulties experienced by the factories in obtaining raw material, the market last week closed with considerable animation at a fresh advance, and tempted, no doubt, by this steady rise in the article, holders brought forward heavy supplies for auction on Tuesday, the catalogues containing:—

Orange ..	1,223 cases, of which 325 were sold.
Garnet ..	238 " " 238 "
Button ..	55 " " 55 "
Total ..	1,516 613

The auctions terminated rather better than expected, for although the prices privately paid on the day preceding the auctions were not quite maintained, the figures realised showed an advance of 1s. on garnet, and from full prices to 2s. advance on orange lac as compared with last week's sales. *Button* lac, which was in short supply, realised fully 2s. advance on the last quotations. First *Orange* worked, good pale colour brought 68s.; three cases fine bright unworked A.S.S.L., 69s.; good unworked S.D. in circle, 66s.; *Second Orange*, good strong palish, 58s.; good bright, 56s. to 57s.; fair T.N., 55s.; rather dark orange, 54s.; ordinary and blocky, 47s. to 51s. per cwt.; *Garnet*, good green worked A.C., 46s. to 47s.; dullish A.T., 45s.; and good free ruby O.C.C., 44s. to 45s. per cwt. *Button* lac, good bright unworked seconds, 62s. to 63s.; worked colory thirds, 55s. Immediately after the auctions a steady turnover was reported at full prices; fair first *Button*, 67s.: fair to fine bright pale *Second Orange*, 56s. to 59s.; and A.C. *Garnet*, 46s.; but since then the market has become rather dull, and at the close 56s. is said to have been accepted for T.N. *Second Orange*, January-February delivery.

SODA CRYSTALS have advanced in price to 60s. per cwt., anded here, and 46s. to 47s. on the Tyne.

SULFONAL.—An agreement was reported to have been arrived at among the makers, but the quotations which we have received do not bear out this statement, for while *Bayer's* brand is now obtainable at the rate of 40s. per lb., *Schering's* is quoted at 62s. 6d., and others at 60s. per lb.

TEAS.—*China*: All low-priced Congous show this week increased firmness, some few hundred half-chests of very common leaf Kaisow selling on Thursday at 4½d., costing the holder 3½d. per lb. some months ago. Common Shantams fetch 4½d. to 4¾d., and old Kaisow, just above very common grades, fetches 5d. per lb. The market is fairly well supplied with better grades of Moning, from 7d. to 11d., but fine first crop Keemuns, Ningchows, and Kintucks are very scarce. *Indian* teas are in very large supply, but prices are maintained wonderfully firmly for lower grades. There are now, however, many very useful teas to be had from 8d. to 8½d. in Pekoe Souchong and broken Pekoe Souchong, and these, with Pekoes selling from 9d. to 11d., are worth attention. The *Ceylon* market keeps up to previous rates, poor liquoring Pekoe Souchongs fetching 10d. to 10½d., and all lower grades correspondingly dear. These teas show very badly when compared with *Assams* at the price.

THE AMERICAN MARKETS.

NEW YORK, October 27.

THE past week has witnessed no important increase in the distribution of supplies into either local or interior channels, but price changes have been quite numerous, influenced largely, however, by cable information to hand from London and Continental markets.

ALOES.—An increase in the export demand for *Curaçao*s has strengthened that article somewhat, though values continue very low—say, 3½c. to 4c.

BALSAM (CANADA) is beginning to arrive, and the tone of the market is easier in consequence. Supplies are offered at \$3, but this could probably be shaded.

BALSAM (TOLU) is selling in this market at 32½c., 13 cases having just been taken at this price.

BORAX, under "pool" influence, which has succeeded in limiting the product, is showing a strong upward tendency; to-day concentrated is held at 8c., as strictly inside, for carload lots.

CAMPHOR.—The bubble has burst, and the market now reflects a downward tendency. The *Domville* cargo to hand has completely upset all "bull" calculations. Refined to-day is nominally 28c. but less will buy from second hands.

CANTHARIDES.—Stronger cables from Russia and Hamburg regarding Russian flies have toned up this market somewhat, with supplies held at \$1.30, but the demand has not improved. *Chinese* have been selling quite freely of late at 35c.

CHEMICALS (HEAVY ENGLISH) continue very scarce, and full previous prices are exacted when small sales are effected. *Chlorate of Potash* in crystals continues firm, but very quiet 15c. is generally asked, with powdered held at same money.

COLOCYNTH.—The reduced stock of this fruit, particularly of *Spanish*, has resulted in increased attention, with sales of 3,000 lbs.; 26c. to 33c. is now demanded.

ERGOT OF RYE, upon information from Europe, has taken a somewhat stronger position. Sales, 3,000 lbs. *German* and *Spanish* at 19c. and 24c. respectively.

GUARANA continues in active demand in this market, and has advanced to \$1.25. The stock is under close control.

LYCOPodium.—The political campaign having about reached its close, interest in lycopodium has in a great measure subsided, and the price in consequence has receded to 27c. nominally.

MEDICINAL ROOTS of all kinds are held at unchanged prices, owing to the continued good demand and small offerings. *Cascara Sagrada* is now held at 32c.; *Texas Snake*, 30c.; *Senega*, 62½c. to 65c.; and *Golden Seal*, 50c.

OIL (PEPPERMINT).—Mr. Hotchkiss is endeavouring to

force a higher price for H.G.H. peppermint, and is talking of \$3 50 for his brand, but the market does not force "for a cent," and it is said that he himself will sell quietly at \$3.25. Exporters, however, do not raise their bids, their ideas not exceeding \$3, hence buyers and sellers momentarily are too far apart for business to result. Bulk stock is decidedly stronger, with Western held at \$2 35 and Wayne county \$2 60.; but these figures are seemingly regarded as too high to admit of important business.

OPIUM may advance in Smyrna, but this market appears to be governed entirely by itself. Cable advices have shown a rise in the primary market during the week of 6d. per lb., but in the face of this there are sellers here to-day at \$1.87½ for ordinary goods in bond, which price is fully 12½c. below the quotations current ten days ago. This low figure, however, appears no inducement, as a sale in excess of a single case seldom comes to the surface. For high-test stock \$2 10 to \$2 25 in bond is asked as to holder.

QUICKSILVER.—In sympathy with the metal, manufacturers of *Mercurials* have again advanced their prices, this time a 3c. rise. *Quicksilver* is quoted to-day 62½c.

QUININE.—The cables from the bark auctions are not of a character to stimulate much interest at this point, and the consequence is that the market retains a generally dull appearance. In the early part of the week German in large tins was held at 33c. to 34c., according to brand, but to-day there are ready sellers at 1c. below, though this concession fails to arouse attention. Purchases are made strictly in accordance with necessities, inquiries for round lots being a rarity.

THE GERMAN MARKET.

HAMBURG, November 6.

THERE is little news to report from our market, a very dull tone has prevailed during the present week, and business is confined to demand for immediate consumption.

The prices in this column are given in marks (11¾d.) per 100 kilos, or per kilo. (1 kilo. = 2 lb. 3½ oz.; 50¾ kilos. = 1 cwt.). The prices in parentheses show the parity in London.

ALOES.—*Cape* remains at 45m. to 50m. according to quality. In *Curaçao*s also there is no alteration; prices are unchanged and very low.

BALSAMS.—*Copaiba* has made a further slight advance, and is now held at 4.40m. to 4.50m. for genuine qualities. *Peruvian* remains quiet at 8½m. (4s. 3d.), although there is some feeble attempt to ask more money.

BARK.—*Cinchona* Porto Cabello. Several parcels just arrived are offered to-day at the extreme price of 140m. to 145m. Of the large quantity of Lima bark offered, only a small portion found buyers at a low price. A new arrival of 35 bales of flat yellow Calisaya sells pretty well at steady prices. *Condurango* neglected. Only small sales have been made at 1.40m. to 1.50m. (6d.).

CAMPHOR (REFINED) has made a considerable advance lately, 2.75m. having been paid. A very fair business is being done in this article.

CANTHARIDES in fair demand at a further advance. Prime new *Russian* flies are now held at 9½m. (4s. 6d.). *Chinese* neglected at about previous values.

ERGOT OF RYE is again dearer. For sound *Russian* 1.80m. is asked. Owners appearing very firm.

MATICO LEAVES remain very steady. The new arrivals of about 35 bales are selling at 125m. to 150m., according to quality.

NUX VOMICA.—1,100 bags are offered, holders asking 19½m.

OILS (ESSENTIAL).—*Star anise* is unchanged, and offering at 13½m. to 13¾m. (6s. 6d.). *Cassia* without alteration. Of *Citronella*, small parcels have arrived, and are held at 3m. (1s. 6d.). *Peppermint*, H.G. Hotchkiss brand, shows no improvement and is rather quiet again, though the price of 14m. is still maintained.

ROOTS.—*Senega*, Western, very steady, and held at 5.50m. to 6m. *Jalap.*—The lots which arrived recently have nearly

all been taken from the market, and the feeling in the article is somewhat firmer. An early advance in prices is looked for. 110m. (5½d.) for prime tubers is now asked.

THE DUTCH CINCHONA AUCTIONS.

(Telegram from our Correspondent.)

AMSTERDAM, November 8.

AT to-day's periodical auctions of Java cinchona bark about 107 tons of manufacturers' bark were offered, analysing as follows:—9 tons from 1 to 2 per cent.; 17 tons 2 to 3; 23 tons 3 to 4; 13 tons 4 to 5; 14 tons 5 to 6; 5 tons 6 to 7; 10 tons 7 to 8; 4 tons 8 to 9; 1 ton 10 to 11. The average quinine standard being 43 per cent. Of the packages offered, 1,592 were disposed of at prices equal to those realised at the London auctions this week, the unit averaging 11 cents, or 2d. per lb. The prices paid range from 10 to 76 cents (= 1½d. to 1s. 1½d. per lb.) for druggists' quills; broken quills and chips, from 17 to 23 cents (= 3d. to 4½d. per lb.) for ditto root; from 14 to 110 cents (= 2½d. to 1s. 8d. per lb.) for manufacturing bark, quills, broken quills, and chips; and from 43 to 82 cents (= 7½d. to 1s. 2½d. per lb.) for manufacturing root. The principal buyers, in order of importance, were Messrs. Zimmer & Co., of Frankfort-on-Maine, the Brunswick Quinine Works, the Amsterdam Quinine Works, and Messrs. C. L. Schepp & Zoon, of Rotterdam.

THE QUEENSLAND TARIFF.

THE Queensland Government has submitted an important new Tariff Bill with a protectionist tendency, in which it is proposed to pretty generally double the present rates of duty on imported goods. We give the proposals as far as they relate to drugs and chemicals:—

Proposed Tariff	Articles	Present Tariff
15 per cent. ..	Acid— Acetic, carbolic, carbolic (pure), muriatic, nitric, ox- alic, picric	7½ per cent.
2s. 6d. per cwt. ..	Sulphuric	"
15 per cent. ..	Tartaric and other	"
Free	Alkali soda— Ash	"
15 per cent. ..	Bicarbonate and caustic	"
2s. per cwt. ..	Crystals	1s. per cwt.
15 per cent. ..	Silicate of	7½ per cent.
1d. per lb. ..	Arrowroot	1d. per lb.
15 per cent. ..	Arsenic	7½ per cent.
"	Brushware	"
"	Drugs and druggists' wares	"
"	Dye	"
"	Earthenware	"
4s. per dozen lbs. ..	Extract of meat	2s. per doz. lbs.
15 per cent. ..	Glass—Bottles, plate, window	7½ per cent.
2d. per lb. ..	Glassware	2d. per lb.
15 per cent. ..	Gum	7½ per cent.
"	Lime juice	"
15 per cent., with exceptions ..	Machinery	5 per cent.
2s. per dozen pints ..	Oil—Castor	1s. per dozen pints
1s. per gallon ..	Cod-liver	6d. per gallon
20s. per dozen pints ..	In bottles	"
3d. per lb. ..	Opium	20s. per lb.
15 per cent. ..	Pepper	2d. per lb.
"	Perfumery and pomades	7½ per cent.
Free	Photographic goods	Free
4s. per cwt. ..	Quicksilver	4s. per cwt.
6s. per gallon, and bitters ..	Saltpetre	"
15 per cent., and garden free ..	Sarsaparilla	4s. per gallon
15 per cent. ..	Seeds	7½ per cent.
10s. per cwt. ..	Seltzer water	"
3d. per lb. ..	Soap	5s. per cwt.
12s. per gallon ..	Spices	2d. per lb.
20s. per gallon ..	Spirits	12s. per gallon
5s. per gallon ..	Perfumed	"
15 per cent. ..	Methylated	5s. per gallon
"	Sponge	7½ per cent.
"	Strychnine	"
6d. per gallon ..	Sulphur	"
15 per cent. ..	Turpentine	6d. per gallon
"	Varnish	7½ per cent.

LONDON DRUG STATISTICS.

THE following figures refer to the stocks of the principal drugs in the Port of London on October 30, 1888, and to the imports and deliveries from January 1 to October 30, as compared with the preceding year:—

Article	Stocks		Imported		Delivered	
	1888	1887	1888	1887	1888	1887
Aloes ..cs & pkgs	6,698	5,645	5,713	4,620	4,737	4,203
" ..gourds	2,353	30	755	507	4,080	723
Anise, Star ..chts	145	186	100	217	135	270
Arrowroot ..cks	15,193	14,795	13,021	15,309	12,783	12,324
" ..bxs & tins	8,008	9,072	4,821	9,604	6,859	5,037
Balsams ..cks, &c.	186	631	154	607	561	667
Bark, Medicinal cks & cs	14,463	10,756	23,059	25,749	20,434	22,855
" ..srns, &c.	42,774	48,956	34,068	35,782	38,970	41,292
Borax ..pkgs	1,590	1,144	717	2,473	362	1,013
Calumba ..	1,854	2,287	1,118	3,181	1,916	2,121
Camphor ..	1,921	3,590	6,452	4,465	6,509	7,051
Cardamoms ..chts	670	854	2,306	3,196	2,409	3,074
Cochineal ..srns	4,364	5,231	2,791	3,046	5,703	4,677
Coccoloba, Ind. bgs, &c.	359	310	812	289	739	429
Cream of Tartar cks	11	12	20	44	22	43
Cubebbs ..bgs	260	29	525	328	378	391
Dragon's Blood cks	62	105	151	103	163	135
Galls, China, &c. cs	2,357	2,237	8,267	3,828	7,660	4,149
Trky & Persn cks	2,927	4,879	6,414	6,195	6,544	5,237
Gum— Ammoniac pkgs	141	267	8	128	97	146
Animi & Copal pkgs	4,728	3,211	7,367	5,748	7,017	7,473
Arabic ..	18,652	9,783	28,669	15,034	21,176	20,372
Asafetida ..	373	486	452	72	529	383
Benjamin ..	1,862	1,927	2,518	1,958	2,214	1,708
Damar ..	2,906	3,474	4,093	4,155	4,637	5,486
Galbanum ..	—	—	—	1	—	1
Gamboge ..	86	129	169	216	189	290
Gualacum ..	15	82	16	48	78	42
Kino ..	97	65	66	29	60	55
Kowrie ..tons	1,500	547	2,825	1,506	2,312	1,859
Mastic ..pkgs	42	105	60	10	117	31
Myrrh, E.I. ..	416	504	443	747	581	471
Olibanum ..	3,777	3,933	6,995	5,980	7,135	5,535
Sandarac ..	963	902	1,239	1,038	1,378	1,382
Tragacanth ..	4,135	1,105	7,496	3,320	5,264	1,814
Indiarubber, E.I. tons	371	287	606	669	490	479
Madagascar ..	38	7	108	56	95	57
S. American ..	91	148	314	301	337	188
African, &c. ..	610	610	949	985	736	640
Total ..	1,110	1,052	1,977	2,011	1,858	1,364
Indigo, Bengal cks	3,264	3,882	7,018	8,024	6,669	7,728
" Madras ..	800	893	939	1,223	1,028	1,061
" Kurpah ..	4,976	3,544	9,560	6,670	7,422	7,533
" Mulla ..	—	—	—	—	—	—
" Figs, &c. ..	1,615	1,935	1,334	1,591	1,344	1,534
Total East ..	—	—	—	—	—	—
" Indian cks	10,655	10,254	18,851	17,508	16,493	17,856
" Spanish srns	2,612	1,745	5,972	3,757	5,189	3,941
Ipecac, casks & bags	73	116	506	476	555	436
Jalap ..bks	144	203	182	114	189	65
Lac Dye ..chts	6,040	7,221	20	28	451	618
Myrabolans ..tons	7,341	10,541	6,475	11,453	9,230	8,866
Nux Vomica pkgs	1,526	527	2,211	603	1,222	735
Oils— Anise ..cs	28	149	128	124	166	141
Cassia ..	9	175	129	210	222	132
Castor ..cks	634	861	345	1,313	602	1,048
" ..cs	9,254	7,452	11,936	9,181	10,192	8,167
Cocoa-nut ..tns	1,772	1,898	4,404	4,383	4,443	3,788
Olive ..cks, &c.	543	682	1,851	3,679	1,955	3,935
Palm ..tns	129	236	189	184	270	127
Opium ..chts, &c.	1,607	2,180	755	1,622	1,253	1,580
Rhubarb ..chts	969	1,242	1,131	996	1,389	1,606
Safflower ..pkgs	546	446	520	378	346	346
Sarsaparilla ..bks	449	400	1,220	1,155	1,268	1,115
Senna ..bks, &c.	1,683	2,260	2,977	5,519	3,820	4,122
Shellac, Orange chts, &c.	48,108	41,850	34,420	33,717	27,992	25,713
Garnet ..	16,529	16,800	9,726	11,738	8,017	6,517
Button ..	9,210	12,109	6,720	8,420	6,636	7,819
Total ..	73,947	70,799	50,856	50,885	44,695	40,049
Sticklac ..chts, &c.	3,712	3,886	1,013	774	1,681	986
Gambier ..tns	442	557	8,083	10,148	9,465	11,226
Cutch ..	2,601	674	4,816	1,900	3,173	2,565
Thurmeric ..	3,265	2,383	1,667	2,078	999	1,162
Vermilion, cks, &c.	23	25	82	84	122	113
Wax, bees' ..bks srns	563	972	364	872	390	949
" ..cks & cs	1,618	1,478	2,282	2,461	2,333	2,301
" ..cakes	3	18	24	26	—	—
Wax, Japan ..pkgs	1,615	691	1,914	727	1,217	1,383



Memoranda for Correspondents.

Always send your proper name and address: we do not publish them unless you wish: if you do not, please use a distinctive nom-de-plume.

Write on one side of the paper only; and devote a separate piece of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers, please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Before writing for formulae consult the last volume, if you have it.

Letters, queries, &c. will be attended to in the order received.

The Irish Pharmacy Bill.

SIR,—During the past ten months a mass of ill-informed and ill-digested comment has appeared in THE CHEMIST AND DRUGGIST and in other trade journals which did not require notice; the challenge contained in your article of this date cannot, however, be allowed to pass without reply.

In the fourth line of this article you make such an unwarranted mistake as to seriously discount your "tedious analysis" of the measure.

The Bill has been read a second time already, and will not require that process to be repeated on November 14.

You ask, "When did you ever get an unfair article from THE CHEMIST AND DRUGGIST?"

Without going farther back, I reply that on November 3, 1888, you print the most conspicuously unfair article that has ever appeared in your usually fairly and independently conducted journal.

You know as well as I do (or ought to know) that so far from the Bill having been brought into existence by any recent failures in legal proceedings, its lines were laid down at least ten years ago, and that successive Governments were asked to legislate on these lines; that it was only when the action promised by Government failed us that my Council undertook to promote the present measure.

You know as well as I do (or ought to know) that the chemists and druggists contemplated by the Act of 1875 were a totally different class in their rights and duties from those whom you now affect to champion.

You know as well as I do (or ought to know) that the Bill now before Parliament does not affect the business of the chemist and druggist as it existed in Ireland before 1875, further than by requiring chemists and druggists to register, and keep on the register, if they want to sell the scheduled poisons.

And you know as well as I do (or ought to know) that under section 30 of the Act of 1875 any persons who entered in the business of selling such poisons since that date have entered upon an illegal business, and that persons have been convicted for the offence.

The retailer of drugs in this free country is still, and will always be, free to carry on his trade except as regards such scheduled poisons as the legislature may from time to time place under restrictions.

The clause of which you make so much was not, as you admit, the work of my Council, but was the direct and inevitable outcome of our opponents' evidence before the Select Committee of the House of Lords; but I could hardly have supposed that even you would have charged that body with a deliberate purpose of imposing by law a "brilliantly conceived insult" on any body of men.

We do not desire or expect to put any druggist out of his calling, but we think that even your enthusiasm will hardly advocate the entrusting of the manipulation of scheduled poisons to persons who cannot show an acquaintance with the rudiments of the English language, and sufficient intelligence to justify some authority in entrusting the safety of the public to them.

Your article is one of the thousands which we read at this

side of the Irish Channel, written at yours for home consumption, but compiled without the slightest effort at learning the premises upon which a just conclusion can be formed.

Your disclaimer of prejudice had better have been left unprinted. No one expects you to be entirely free from prejudice in any matter affecting the Irish Pharmaceutical Society; but we might expect—what you are not disposed to give us—fairplay.

Yours faithfully,
J. E. BRUNKER.

11 Harcourt Street, Dublin, Nov. 3.

SIR,—I have been so well pleased with your leading article on the Irish Pharmacy Act (Amendment) Bill that I would feel a pang of ingratitude if I did not write to thank you for the masterly way in which you have grasped the true situation of the unfortunate chemist and druggist if this Bill is allowed to become law. Poor dear Mr. Balfour up to this has earned the title of the champion coercionist, but to my thinking the little pharmaceutical clique in Dublin, if they got their way, should have the "cake," and the occupation of the chemist and druggist will be gone. It is a very serious matter for us Irish chemists and druggists—a matter of "life and death"—and we are determined to fight it out to the bitter end. I trust some English M.P.'s who take an interest in pharmaceutical legislation may be posted on the matter, as I feel certain that the justice of our case will obtain their support. In writing the M.P. for my district last night I sent him your leader, asking him to use his influence with the other Irish M.P.'s.

Faithfully yours,
LUKE J. HEALY.

Drogheda, November 5.

SIR,—May I ask you to kindly reprint the following letter addressed by the President of the Pharmaceutical Society to all the certificate holders of that Association?—

[Private.]

*Pharmaceutical Society of Ireland,
11 Harcourt Street, Dublin,
October 26, 1888.*

PHARMACY ACT (IRELAND), 1875, AMENDMENT BILL.

Dear Sir,—I wish to remind you that this Bill is set down for committee in the House of Commons for 14th proximo.

Kindly use all your influence with your local member of Parliament to secure his presence and support of the Bill on that occasion, urging strongly upon him that the safety of the public is at stake, and that the only opposition which has developed comes from a few wholesale druggists who are directly interested in an indefinite continuation of the present state of things.

Yours faithfully,
J. E. BRUNKER (President).

[The words italicised do not so appear in the original.]

As hon. sec. to the Chemists and Druggists' Association (Dublin branch), which has been specially formed to oppose above Bill, I have been asked to say that out of sixty members of our Association, still in its infancy, only three are wholesale druggists. Apologising for troubling you,

Yours, &c.,
JAMES HANSON, Hon. Sec.

Capel Street, Dublin, Nov. 7.

THE CHEMISTS AND DRUGGISTS' ASSOCIATION OF IRELAND (Dublin Branch) have sent us a resolution of thanks for articles in reference to the Pharmacy Act (Ireland), 1875, Amendment Bill.

SIR,—I thank you very much for your able article which appeared in your journal last week on this unjust Bill. Will you insert in your next issue the following enumeration of a few clauses which would satisfy Irish chemists and druggists, and meet public wants:—

1st.—Every chemist and druggist who was practising as such on his own account in Ireland before January 1, 1888, to be registered under this Act as a chemist and druggist, with-

out examination, on payment of the usual fee and making the required declaration; and on his contributing to the funds of the Pharmaceutical Society be elected an associate of the said Society, and have power to vote at all its meetings.

2nd.—Every person registered as a chemist and druggist to be allowed to compound medical prescriptions, provided he keeps a qualified person in his establishment for this purpose.

3rd.—Every assistant or apprentice who shall have completed his term of apprenticeship not less than four years previous to January 1, 1888, to a *bona-fide* chemist and druggist, on his passing a modified examination in drugs, chemicals, and poisonous substances in general use, and on payment of the usual fees and making the required declaration, to be registered as a chemist and druggist.

4th.—Every person registered under this Act as a chemist and druggist, and practising on his own account, to be allowed to take apprentices as before this Act was passed, provided he employ a qualified person to instruct him in the profession.

5th.—That the names of a clergyman or two householders be added to the declaration form.

A DUBLIN CHEMIST AND DRUGGIST OF 20 YEARS' EXPERIENCE. (170/73.)

P.S.—When the 1875 Act was passed several free licences were granted to those on the Council, without putting them to the trouble of passing any examination. Why not grant licences to others equally qualified, but not on the Council, same as in England when a like Act was passed?

Poisons Regulations.

SIR,—At the meeting of the Liverpool Chemists' Association, November 1, the motion "that it is desirable that regulations be made by the Council of the Pharmaceutical Society for the keeping, selling, and dispensing of poisons, with a view to submitting the same to the Privy Council, so as to become law," was unanimously carried. The report of the meeting is likely to impress one that the chemists in the district are clamouring for this restrictive and meddlesome legislation, when the fact is that barely a dozen members were present at the meeting, so that it could scarcely be called even a representative one. The remarks of every speaker made it appear strongly that no such legislation was necessary, because every chemist now did all that was required for his own safety and that of the public. It is difficult to understand how such a law as that desired by the Liverpool Chemists' Association would benefit the trade, as it in no way interferes with the dispensing or storing of poisons in doctors' or apothecaries' open retail shops, nor with the sale of poisons in photographic depôts, where most potent poisons are sold in any quantity without questions or restrictions of any kind. It was also mentioned at the meeting that in the carbolic-acid scare in Liverpool the hands of the chemists were clean, the oil shops being the offenders.

The natural conclusion seems to be that no regulations are needed by the chemists, who now do all that is necessary, but that legislation is required to prevent the sales of poisons by other than registered chemists. If a rider to this effect could be added to the resolution quoted it would probably have the support of the trade, who up to the present have had little else than harassing legislation.

Yours truly,
NEMO. (169/20.)

SIR,—We are invited to discuss the practicability of regulating the storing of poisons in chemists' shops, the back kitchens, &c., of the doctor to be allowed to continue to dwell in peace.

It gives us a good idea of the notions which some gentlemen have of the principles of right and justice. To put it plainly, one half the dispensers in the kingdom are to be bound down by laws and regulations, with the daily fear of being caught infringing the Act, to have the pleasure of a house-searching whenever our gallant "peacemakers" choose, while the other half, the medical tradesmen, are to be free to poison as many as their carelessness can make possible, provided they give a verdict of "Death from natural causes." The whole thing is preposterous, and chemists will be fools if they submit to be thus served.

The fact of the matter is, we are imbued with too much of that spirit of toadyism which pervades the English people. We are afraid to attempt to legislate the doctors for fear of having their everlasting malediction, and afraid to indulge in free trade and competition from the idea that we shall lower the dignity of our profession and offend the stores-besmeared aristocrat and the upstart, impecunious gentry. The sooner we leave legislation to take care of itself the sooner shall we have a competent measure of success.

Yours truly,
RESEDA. (163/61.)

SIR,—It appears to me that the Liverpool Chemists' Association are making a sad mistake in proposing fresh legislation relating to poisons for the chemists, who, they are careful to assure us, do not require it, and at the same time say the restrictions desired will not apply to doctors, apothecaries, photographic dealers, or oilmen. A few days ago a stranger came into my shop and asked for 4 oz. cyanide of potassium. I explained the Poisons Act to him, and showed him the poison register; for my trouble he laughed and said, "That is absurd. I can get it or mercuric chloride at the photographic dealers without any trouble of that kind." He then left me, feeling anything but pleased that the restrictions we already have are not enforced on those outside our trade, who deal with perfect freedom and far more largely in poisons than ourselves. The carbolic acid, about which there has been so much trouble recently in Liverpool, has not been procured from the chemists, who already class it among the poisons.

It is useless to go to the Privy Council for something we do not want in order to get something we do; what should we think of the sanity of a captain who, if his ship were leaky, took infinite pains to patch some sound portion instead of the weak? We really wish those outside our trade dealing in poisons to be under the same restrictions as ourselves, then we should have a little

FAIRPLAY. (170/16)

How Late was the Gas "Full Ablaze"?

SIR,—I observe in your last issue an inaccurate report of the mode of advertising adopted by the Southern Drug Company (Limited), and as the writer does not question the accuracy of the statements made, or the legitimacy of the deduction suggested, in the paragraph which he condescends to cull from the advertisements exhibited by the "vulgar little boys," who so shock his delicate sensibilities, I am able to treat that part of his report with "the good-humoured indifference" with which (as he says) the public treat the advertisements of the Drug Company. But he introduces another matter, which calls for a few observations. He says:—"Hours after the other chemists have closed, the Drug Company keep open, gas full ablaze, until nearly eleven o'clock at night." It is somewhat amusing to observe that when some years ago the Southampton Drug Company decided to release nearly all their assistants at 8 P.M., and to close finally at 9 P.M., this early closing was regarded as a grievance by the "other chemists," and it has been made the subject of reproach elsewhere. You were then good enough to print that Company's advertisement upon the subject at the request of a correspondent, who held them up to "scorn and contumely," because they were willing that their customers should go, after the hour named, to the shops of the "other chemists," nearly all of whom at that time kept their pharmacies more or less open (very unnecessarily, as I think) until 11 P.M. Now it is the late closing of the Southern Drug Company which is the ground of complaint. I may safely leave these unreasonable grumblers to decide which of these contradictory complaints they intend to stand by. But is it possible to find a better illustration of the old adage—"Any stick is good enough to beat a dog with"? The fact is that the only closing that would meet with the approval of our "friend the enemy" is closing altogether; and that, I venture to say, would not be regarded by them with "indifference," good-humoured or otherwise. I have long felt that the absurdly long hours of chemists' assistants could and ought to be shortened; but any efforts I have made, on behalf of the companies I represent, to co-operate with chemists with

that view have been met either with contemptuous silence or rude rejection, and I do not care to repeat the experiment. Under these circumstances we must needs pursue an independent course, and in doing so we should be as foolish as the old man with his donkey if we attempted to please our opponents. Meanwhile, I have not the least objection to your correspondents expressing their opinions about us and our system of business just as fully and freely as they please, if they will only speak the truth. I am bound to remind your correspondent of last week that falsehood is a dangerous weapon to use, and one which those whose cause he champions will not thank him for wielding in their behalf. The best of men may differ as widely as the poles as to matters of opinion, but your correspondent, in his eagerness to cast opprobrium upon us, has utterly misrepresented easily observable facts. Allow me to state that all the Southern Drug Company's assistants and employes, except one, leave at 8 P.M., and the place is finally closed for the night at 9.30, or during the winter (as was arranged at the beginning of this month) at 9 P.M., on Saturdays at 10 P.M., with three hours' attendance for one assistant on Sundays. Now, either your correspondent knew, or he did not know, our hours of closing. If he did know them, he has made a deliberate misstatement; if he did not know them, he had no business to write about them at all. So far is his statement from the truth that I shall be surprised if he can point to many (if any) chemists' businesses in Bournemouth where the hours of attendance are as short. As to the quantity of gas consumed, that is our affair; but it has never been seen "full ablaze until nearly eleven o'clock at night," as your mendacious correspondent represents it to have been habitually. It is not long since another of your correspondents, amongst other inaccuracies, declared that the Southampton Drug Company only maintained its existence by grinding down the salaries of its assistants to the lowest point; and I had to prove to him not only that this was untrue, but that it was the reverse of the truth. Again, still more recently a report has been industriously circulated that the same Company never keeps an employe for more than a few months; and I had the pleasure of showing to one of our customers, whom it was sought thus to influence, such a list of long and faithful services as it would probably be difficult to match. Let us have the truth and something approaching to fairness, and I care not how severe the criticisms of our opponents may be. I think their position unjustifiable; they think ours equally so, and we are both entitled to our views; but we are not entitled to misrepresent facts which are easily ascertainable, and respecting which there cannot be two opinions.

Yours truly,

WILLIAM DAY, Managing
Director of the Southern Drug Company
Bournemouth, Nov. 7. (Limited).

Belfast Neuralgic Powders.

SIR,—The neuralgia powders sent to you by "Belfast" are no doubt those known as "Jenner's." I have often had to make them as follows:—

Quinine sulph.	..	..	..	gr. vj.
Pulv. pip. cayenne	..	..	..	.. xvij.
Sodæ bicarb. pulv.	..	..	..	.. ʒj.
M. et div. in pulv. xij.				

In some cases the quantity of cayenne pepper is only 6 grains.

Yours truly,

COCAINE HYDROCHLOR. (170/28.)

[The powder which we examined was white, and failed to give the thalleoquin and other reactions for quinine.—ED.]

Country Simples.

SIR,—Mr. Bell does not mention Dr. James's *Pharmacopœia Universalis*, or "New English Universal Dispensatory," 1747, among the books which he consulted *re Ulex*. On page 324, I read as follows:—

"*Genista Spartium, majus, longioribus aculeis*. Journ. Inst. Boerh. Ind. Alt. Furz or Gors. This plant flowers in the spring, and the whole of it is used in medicine, for the same purposes as the two preceding."

The "two preceding" are *Genista tinctoria Germanica*, which

"agrees in temperament and outward appearance with the common *Cytiso-Genista*, and may be supposed to have the same qualities"; and *Genista Spartium, majus, brevioribus aculeis*, the lesser Furz, which flowers in the autumn, and of which the whole plant is used, agreeing in virtues with the preceding.

The Common Broom, *Cytiso-Genista Scoparia vulgaris, flore luteo*, is credited with virtues for the spleen, liver, kidneys, and against dropsy; but no mention is made of pectoral qualities.

These old drug-books are very amusing. Modern experience has found new uses for many of the "Simples" described. In this work, *Dandelion* is prescribed "in putrid and inveterate fevers, also in a phthisis, consumption, scurvy, and cachexy." *Digitalis* is "emetic, and purges very violently upwards and downwards." *Hyoscyamus* is "refrigerating and emollient, induces sleep, mitigates violent pain and acrimony, but disturbs the reason, whence it is but very seldom exhibited internally, yet is sometimes so administered to cure a spitting of blood." These are a few examples of what is taught.

Among medicines which are to day more or less fashionable as "new remedies" I notice, on a cursory perusal: Alkekengi, aparine, arum, avena, bryonia, apium, euonymus, iris, convallaria, and many others. Possibly, some of our new remedies are suggested to students of the old plant lore.

Yours truly,

HEDER. (170/57.)

DISPENSING NOTES.

The opinions of practical readers are invited on subjects discussed under this heading.

168/14. *Ann Theridia*.—There seems no doubt that the prescriber meant the quantity to be divided into six powders.

62/65. *Ajax*.—The blue colour peculiar to mixtures containing tincture of nux vomica and an alkali is due to the action of the alkali upon the igasuric acid of the nux vomica. On this point see the "Art of Dispensing," page 132.

Calcic Chloride and Ferrous Iodide.

SIR,—The prescription containing liq. calcis chlor. and syr. ferri iodidi deposits a reddish-brown precipitate in less than half an hour; in fact, the mixture is coloured brown directly the liq. calcis chlor. is added. The precipitate appears to be ferric hydrate. It seems strange to me that calcic chloride should convert ferrous into ferric salts; it does so immediately. It is probably owing to impurities.

Yours truly,

AJAX. (170/19.)

[We have again dispensed the mixture with the same result—a clear, water-white solution. Even on boiling a mixture of syr. ferri iodid., liq. calcii chlorid., and water was not changed. The only conclusion we can arrive at is that our correspondents have used liq. calcis chlorinatæ; or probably their liq. calcii chlorid. has undergone some change.—ED.]

A German Prescription.

171/30. *Cymro*.—The following is the rendering of your prescription. We may add that in the chapter on German prescriptions in the "Art of Dispensing" you will get a good deal of information which would help you in similar circumstances:—

Ferri sulphurici	..	..	..	15 grammes
Kali carbonici	..	..	..	15 "

M. f. pil. No. 50.

S.: Dreimal täglich 1-3 Pillen zum Essen. [One to three pills three times a day at meal-times.]

Acid. borici	..	..	..	0·5
Vaselin. alb.	..	..	..	10·0

M. f. ung.

D. S.: Aeusserlich. [For external use.]

Your other questions will be attended to next week.

A Bismuth Mixture.

A. P. S. (171/63) would feel obliged if any of our readers could account for the following mixing, apparently, all right, and after standing two hours becoming a curdled mass with the clear water on top, and with violent agitation it would not keep mixed many minutes. He afterwards made it with bismuth. subcarb. and it appeared all right in two hours:—

Bismuth. subnit.	..	..	..	..	grs. 160
Mucil. tragacanth.	..	..	..	..	3j.
Syr. flor. aurant.	..	..	..	..	3ij.
Aqua ad ..	..	..	..	..	3ij.

Misce.

Keratine Coating for Pills.

171/69. W. O. C.—The coating solution of keratine is made with liquor ammoniæ. See the "Art of Dispensing," page 86.

LEGAL QUERIES.

10/168. Kappa.—The Shop Hours Regulation Act applies to all young persons under eighteen years of age employed in shops. You must not employ any such person for more than 74 hours per week, and in that time you are to allow the periods required for meals. You will find the text of the Act and many other legal matters of importance to chemists in THE CHEMISTS' AND DRUGGISTS' DIARY, 1888.

25/168. Thistle asks if he makes up a chilblain liniment containing some acid. hydrocyanic. dil., and labels the bottles "Poison," is that sufficient without entering each sale in the poisons book. [It would be sufficient if he keeps a record of each sale and name and address of each purchaser. Otherwise preparations containing hydrocyanic acid, whether put-up medicines or not, require entry according to the law.]

14/169. T. C. R.—We cannot take the risk of warning the trade against a firm or its representatives, unless we have the fullest particulars of the complaint alleged against them, and opportunity of making independent inquiries.

We have received several communications from chemists respecting a circular issued by a Mr. Wm. Wilkins, acting as solicitor for Messrs. Condry & Mitchell (Limited). Mr. Wilkins asks for information concerning any persons in the neighbourhood of the addressees who may be selling a disinfectant fluid in bottles bearing labels imitating in colour and effect those used by his clients, so that "in your interests, as well as in that of my clients," he may take steps to put a stop to such dishonest practices. The circular goes on to say, "The imitations of my clients' fluid that have already been suppressed have consisted of solutions of permanganates of potash, resembling their fluid in colour, but differing considerably from it in composition, filled into oval bottles and corked with unprepared corks, the said bottles being covered with paper wrappers and labelled with red labels, which, although the word 'Condry' does not appear, present a resemblance to my clients' label, and consequently were considered by the courts to be colourable imitations of the same, the intention of which is obvious when it is offered or sold in place of the article imitated. Annexed are particulars of injunctions, with costs and damages, obtained by my clients."

Messrs. Condry & Mitchell (Limited) have the right to the exclusive use of the title "Condry's Fluid," and they can obtain injunctions against vendors who sell their disinfecting fluids, put up in such style as to so nearly resemble Condry's as to be likely, in the opinion of a court, to mislead a purchaser of ordinary intelligence. But they cannot stop anyone selling, as a disinfecting fluid, a solution of permanganate of soda or potash, if there is no such similarity of get up. We cannot, however, undertake to say whether this or that label is safe. The only safe advice is that chemists, if they put up such an article at all, should avoid approach to Condry's labels in colour, shape, text, and arrangement of type.

MISCELLANEOUS INQUIRIES.

A large number of correspondents ask us for formulæ which have already been published in this journal. It is not fair to more careful readers that we should frequently repeat such information, and so long as the back numbers containing the formulæ or replies required are in print we must decline to do so. Back numbers of our weekly issue can be obtained from the publisher at 4d. each.

165/41. Duncan.—The following is the formula for Sage's Catarrh Cure, which we published in our special issue of January last:—

Powdered golden seal	..	..	1 oz.
Sodium chloride	..	..	10 grains
Powdered borax	..	..	10 "
Prussian blue	..	..	q.s. to colour

Mix.

165/74. Cochincal.—Fluid Extract of Horehound may be made by triple maceration of 1 lb. of horehound with 3 pints of water. Evaporate the infusion to 12 oz., and add 5 oz. of rectified spirit.

165/17. Adeps Benz.—(1) A paper on "Tinctura Ferri Murialis," Ph. Ed., will be found in our issue of March 17, 1888, page 365, wherein the formula of the preparation is given. (2) Add to the mixture 10 grains of citric acid, use chloroform water, and filter. In this way it remains bright.

161/2. J. B. wishes to obtain fuller information regarding the manufacture of the protective fluid mentioned in Mr. Jackson's letter printed in this journal October 20. Can anyone supply the formula?

8/162. C. O. H.—Our information is to the effect that American chemists are not in want of British or Irish assistants; that they generally prefer the native article. The salaries, hours of business, &c., vary in much about the same ratio as in this country. It is necessary to get an American qualification in most of the States before commencing business.

161/11. T. H. P.—Sensitised Paper.—For the preservation of this paper, 1 grain of citric acid to the ounce of the silver bath does very well. Float the paper in the usual way. On removing the paper from the silver bath remove the superfluous silver from the paper with blotting-paper. Hang up to dry. When the paper is quite dry lay aside in a cool place for some time, till quite limp; then float the back on a 10 grain to the ounce solution of citric acid. Take care no acid gets on the front or silvered side. Float for about one minute; blot off superfluous solution; hang up to dry. Dr. Van Monkhoven recommends the following:—

Water	..	..	..	..	100 c.c.
Silver nitrate	..	..	..	..	12 grammes
Magnesia nitrate	..	..	..	..	12 "

167/73. E. T. W. would feel obliged if someone who has tried the Bell Scholarships examination would mention the best Virgil to use. Hints on the other subjects would be acceptable.

59/31. Erica.—It is quite outside the intention of these columns to give details of the method used for Tinning Steel Wire. Briefly it is this: The wire is thoroughly cleaned by the usual pickle, dried, smeared with palm oil, and passed through a bath of molten tin.

64/3. J. T. H.—(1) If you refer to our DIARY you will find advertisements of the compressed pellet machines. (2)

Wood which is being attacked by worms should be brushed with a solution of mercuric chloride (1 part to a mixture of methylated spirit 10 parts, and water 90 parts). When dry polish with Furniture Paste such as the following:—

Natural camphor oil	..	..	..	1 oz.
Turpentine	..	..	..	3 oz.
Thymol	..	..	..	1 drachm
Yellow wax	..	..	..	2 oz.

M. S. A.

167/51. *Subscriber*.—A solution of cyanide of potassium is the thing to remove silver marking-ink stains.

166/69. *Teff*.—To utilise a copper for distilling the requirements are a still-head and condenser. The still-head should preferably be of the form shown in figure 33 of "The Art of Pharmacy." This you might have attached to the lid with handles, as shown in the figure. The simplest form of condenser is that shown in figure 31, and the best figure 34.

31/10. *Purifier* asks why the following Blood Mixture ferments and bursts the bottles kept in a warm place:—

Dec. sarze co. 1-7	..	..	..	3ss.
Liq. potas.	..	..	..	3j.
Potas. iodid.	..	..	..	3ss.
Sp. chlorof.	..	..	..	3ss.
Aq. calcis ad	..	..	..	3x.

[Because it contains a tolerable amount of vegetable matter without anything to preserve it. We should use at least 5 drachms of the spirit of chloroform, which is an excellent preservative agent. 3ss. is apparently an error.]

60/21. *Tig-Tag*.—Tin upon which labels are to be stuck should first be varnished, then use flour paste containing 2 per cent. of alum.

167/18. *C. G. W.*—Negative Varnish:—

Shellac	..	..	..	4½ drachms
Mastic	..	..	..	1 "
Turpentine	..	..	..	1 "
Sandarac	..	..	..	½ "
Venice turpentine	..	..	..	1 "
Camphor	..	..	..	5 grains
Spirit	..	..	..	10 oz.

Dissolve.

169/34. *A. Gowen*.—St. John Long's Liniment:—

Turpentine	..	..	..	3 oz.
Acetic acid	..	..	..	5 drachms
Rose water	..	..	..	2½ oz.
Essence of lemon	..	..	..	80 minims
Yolk of 1 egg	..	..	..	

Mix.

169/30. *T. W. Z.*—Thanks. It should be 4 pints.

169/3. *A. W. Rose*.—Carbolic Colloid for toothache is a mixture of equal volumes of carbolic acid and collodion. The acid should be melted without addition of water, poured into the collodion, and the two then shaken.

169/7. *G. A. M.*—Liquid Blue is made from the finest Chinese blue, ½ oz., and oxalic acid, ¼ oz. to the pint of water.

169/28. *Durham*.—We have examined some of the flours used for making Snow-cakes, and have found them to be potato-farina with some baking-powder.

167/20. *H. T. D.*—Blue vitriol is used for pickling wheat, in order to destroy the larvæ of grub-fly which may be adherent to it.

167/21. *Physic*.—A good Hop Tonic for aerated beverages may be made by macerating 2 oz. of lupuline in 15 oz. of rectified spirit for seven days; adding to this 5 oz. of infusion of quassia; allowing to stand two days longer, then filtering.

61/41. *Ajax* (Scotland).—(1) **Browning for Soups**.—Heat 8 oz. of sugar and 2 oz. of butter together, stirring constantly, until browned. Then add 1 pint of mushroom ketchup, 1 pint of water, and the following spices: Mace, 1 oz.; cloves, ¼ oz.; cinnamon, ½ oz.; black pepper, 1 oz. Boil for five minutes, add 6 oz. of common salt and set aside for a week. Then decant the clear portion and bottle. (2) Tincture of insect powder mixed with water is a good and safe thing for killing green-fly.

61/39. *Nes*.—Washable Ink similar to that used by architects may be made from nigrosin 30 grains, to 1 oz. of methylated spirit. Add to this 10 grains of flowers of camphor and 30 grains of powdered sandarac.

Deathe and Pompillian are things for which *A Country Chemist* (163/37) wishes to know what is generally given.

168/54. *A. F. Brookes* writes re **Syr. Ferri et Quinin. c. Strych. Phosph. B.P.C.**:—"There is a white precipitate thrown down within twelve hours after making. I have made it with different samples of ingredients, but get the same result." It has already been pointed out that in the course of time this syrup deposits a crystalline precipitate which is sufficiently abundant to make the syrup solid, and it has been stated that the precipitate is phosphate of quinine. But the precipitate is not afforded with all samples of commercial quinine sulphate, and if the pure alkaloid is used, the deposit is comparatively trifling. These facts lead to the suggestion that it may be homo-quinine which is the cause of the change; but, however that may be, the matter is one which requires the attention of the Formulary Committee, as Mr. Brookes's experience is shared by others. [Since this was written we have received the precipitate from our correspondent, and shall have more to say about the matter in another issue.]

171/2. *Nemo* (Bristol).—For Syrupus Picis see page 603, October 27. **Liquor Picis Alkalinus**—Tar, 2 oz.; caustic potash, 1 oz.; water, 5 oz. Dissolve the potash in the water, and digest the tar in the solution for two days; then strain through pyroxylin or glass-wool.

14/162. *C. S. A.*—Digne's cachet apparatus are made by J. Digne & Co., 41 Boulevard Chave, Marseilles, and particulars of them can be obtained from Messrs. W. F. Hunt & Co., 25 Great Windmill Street, London, W.

173/3. If *Apprentice* takes the trouble to look up back numbers he will find Gould's prescription fully explained.

169/45. *Student*.—Bentley's "Structural and Morphological Botany" is published at 7s. 6d.

Information Wanted.

[Replies to the following requests are solicited by correspondents of THE CHEMIST AND DRUGGIST.]

165/17. Where can empty camphor lockets be obtained?

159/72. What is intended by "oil of ivy"?—recommended for mixing bait for fish.

167/20. Makers of "Health" dog biscuits.

61/39. Makers of "Electric Fuse" preparation for turning rabbits out of their holes.

170/11. Composition of Gishurst's compound—an insecticide.



SHOP BOTTLES & JARS

WITH VITRIFIED (burnt in) LABELS

(Black Letters on a ground of Pink or White Enamel).

Labels indestructible and of elegant appearance, forming an even surface with the glass or porcelain. The Jars of best porcelain, thoroughly greaseproof. The Bottles hand-made and of superior quality. Both are unsurpassed by anything in the market in every respect. Also a CHEAPER sort of Bottles and Jars, with labels equally indestructible, but very plain, especially suitable for Dispensaries, &c. Intending Buyers are requested to inspect Samples at

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A large number of Shops have been fitted up with these Bottles and Jars, both in England and the Colonies, a list of which can be had on application.



LATEST NOVELTIES:

POISON BOTTLES of Ribbed Blue Glass, with RAISED White Vitrified Letters, and the Word "POISON" in Red at foot.

DRAWER LABELS of Crystal Glass, with Bevelled edges and Vitrified Labels to match the above Bottles and Jars.

A STANDARD LIST OF LABELS for Chemists' Shop Bottles, Jars, and Drawers will be sent free on application.

A Stock of small sets always on hand.

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PURE OXIDE OF ZINC (HARRIS'S)

SPECIALLY PREPARED FOR PHARMACEUTICAL PURPOSES.

PHILIP HARRIS & CO., LIM., Manufacturing Wholesale and Export Chemists, **BIRMINGHAM.**

PRESENTED GRATIS!!

A FAMILY OUTFIT OF RUBBER TYPE

TO FORM ANY NAME WITH EVERY 1/4-BOTTLE

THIS USEFUL GIFT CONSISTS OF TWO SETS OF INDIA RUBBER ALPHABETICAL LETTERS PAD, & HOLDER WITH ENLARGED 1/4-BOTTLE OF MARKING INK. - SEE YOU GET IT.

Unprecedented success. Large and increased sale.

With CRYSTAL PALACE

JOHN BOND'S GOLD MEDAL

MARKING INK.

Order sample doz. We guarantee most satisfactory result, and repeat order.

WORKS-75 SOUTHGATE ROAD, LONDON.



Established

BISHOP'S

1857.



Granular Effervescent Preparations.

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Citrate of Caffeine.

(REMEDY FOR SICK HEADACHE.)

Citrate of Lithia.

„ „ Potash.

Antipyrin.

Antifebrin.

Lithia Benzoate.

Nux Vomica.

Caffeine Hydrobromate

(REMEDY FOR NERVOUS HEADACHE.)

Lithia Salicylate.

Sulphate of Soda.

Quinine and Iron, &c.

AND THE ORIGINAL

"CITRATE OF MAGNESIA."

CARLSBAD, VICHY, PULLNA, SELTZER, FRIEDRICHSHALL SALTS, ETC.



Note the name, BISHOP, on the Seal. AND the Registered Trade Mark on the Label.

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H. TROMMSDORFF, Manufacturing Chemist, ERFURT.**SOZOIODOL**

Or DI-IODOPARAPHENOLSULPHONIC ACID is an

ODOURLESS SUBSTITUTE FOR IODOFORM.

Sozoiodol surpasses Iodoform by its promptitude of action in Syphilitic, Tuberculous, and Scrofulous Ulcerations.

A NEW AND MOST POWERFUL ANTISEPTIC.**TROMMSDORFF'S Sozoiodol COMPOUNDS**Have been applied in Dermatology, Rhinology, Laryngology, and Dentistry, with great success.

POTASSIUM-

Sozoiodol

SODIUM-

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ZINC-

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MERCURY-

Sozoiodol

Potassium- and Sodium-Sozoiodol are soluble in the proportion of 1 in 5, and have been applied pure, or mixed with equal parts of Sugar of Milk; the alkaline salts are non-poisonous and absolutely free from any cauterising or irritating effect. Zinc-Sozoiodol was applied mixed with 1 part to 5 or 10 parts of Sugar of Milk. Injections of a solution (1 in 50) have given excellent results in the treatment of diseases of the generative organs, such as gonorrhœa. Mercury-Sozoiodol should be applied in dilutions of only 1 in 10 or 1 in 20.

For Samples, Quotations, and all particulars, apply to the **SOLE AGENT**—**Mr. FREDERICK BOEHM, 27 Billiter Square Buildings, London, E.C.****BANNER'S LIVERPOOL
SUMMER SEASON SPECIALITIES.**

GRANULAR EFFERVESCENT CITRATE OF MAGNESIA.
DALMATIAN INSECT POWDER
(FROM CLOSED FLOWERS).

1-cwt. Case of Tins Mag. Cit. Gran. Effer. at 6½d. per lb. | 28-lb. Tins Mag. Cit. Gran. Effer. at 7d. per lb.

GREAT REDUCTION !**NEW AMERICAN OIL OF PEPPER-****MINT**, NOT deprived of its Menthol, 8s. 9d. per lb.

An original 22-oz. bottle free by parcel post for 12s. 6d.

8-oz. Capsuled E. I. Mustard Seed Oil, branded "Star of India" on Capsule, bottle ... 8/9 per doz.

4-oz. Capsuled ditto, ditto ... 5/6 " "

28-lb. tins Dalmatian Insect Powder ... 1½ per lb.

56-lb. tins Chilian Honey ... -/3 " "

10-lb. tins Super Ess. Lemon ... 5/6 " "

7-lb. pottle P. Rhei E. I. Elect ... 3/- " "

56-lb. Bale Senna T.V. ... -/3¼ " "

4½-gallon tins finest non-freezing Norwegian

Cod Liver Oil ... 4/6 per gal.

CIRCASSIAN SWEET OIL. — 40-gallon

barrel, bright and clear as COLZA OIL—1s. 6d. per gallon (for Hair Oil, &c.); sample 9-gallon tin for 15s.

40-lb. tin Baseline Petro. Jelly (firmer than Vaseline) ... -/4 per lb.

(Best Ointment and Pomade basis.)

Dozen Pure Menthol Cones, in neat turned wood boxes ... 2/- per doz.

One-Gross case 3d. size "Struck down Dead"

Vermin Killer, with "Poison Register," for 10/6.

GOOD MERCHANTABLE QUALITY GUARANTEED.**E. R. BANNER**DRUG
MERCHANT,**56 BOALER STREET, LIVERPOOL.**

WYLEYS & CO.

MANUFACTURING CHEMISTS AND DRUG GRINDERS.

WAREHOUSES, LABORATORIES, & DRUG MILLS, COVENTRY.

COATED PILLS.

Estimates for making and coating according to private recipes will be forwarded on application.

Our pill department is now a most important branch of our business; and we have a large staff exclusively engaged in pill making. All mixing, cutting, rounding, picking, &c., is accomplished with the aid of steam machinery, by which means we attain a uniformity in composition and size such as cannot be equalled by hand-work.

WYLEYS' PEARL-COATED PILLS.

Our coating is well known as possessed of excellent keeping qualities, being thin in substance, soluble, and well adapted to retain the essential oils contained in the pill masses.

For finish, and general good appearance, they will compare most favourably with any in the market.

WYLEYS' GELATINE-COATED OVAL PILLS.

The only oval gelatine-coated pills of English manufacture in the market. The distinctive colours of the ingredients contained within them show through the transparent covering, and our gelatine-coated pills are admirably adapted for the elegant administration of single drugs, as well as compound pill masses.

Our "Prices Current" contains an extensive list of coated pills, showing formulæ and prices, together with a number of TESTIMONIALS.

PILL VASES (GOLD LABELLED).

We stock handsome vases, adapted for Soluble Pearl or Gelatine-coated Pills, and labelled according to the following varieties: "Liver," "Female," "Castor Oil," "Aperient," "Compound Rhubarb," "Digestive," "Rheumatic," "Cough."

PRICES.

Small, to hold 2 to 3 gross 3/6 each
Large, to hold 7 to 8 gross 5/- "

These may be had filled according to any of the numbers given in our list, or with special pills to private formulæ. As examples of prices, we quote:—

	Pearl-coated.	Oval Gelatine.
No. 211 (Liver) .. per gross..	1/8	2/2
" 258 (Liver)	1/4	1/10
" 29 (Aperient)	10d.	1/4
" 537 (Digestive)	1/4	1/10
" 480 (Female)	2/-	2/6
" 623 (Female)	1/3	1/9
" 80 (Rheumatic)	2/-	2/6
" 619 (Cough)	1/6	2/-

Special quotations for large quantities.

COMPRESSED PELLETS.

We are offering Glass-topped Boxes, suitable for display on the counter, and containing two dozen heart-shaped bottles, with white metal screw caps, and filled with pellets (assorted) at 6/ per box net cash.

List of Pellets supplied.

Ammonium Chloride. Sodium Bicarbonate.
Potassium Chlorate. Sal Prunella.
Potassium Chlorate and Borax. Soda Mints.
Potassium Bicarbonate. Voice.

Also similar Glass-topped Boxes containing 3 doz. Metallic Boxes, filled with an assortment of pellets, as above, at 7/6 per box net cash.

For prices in bulk, see "Prices Current."

GLYCERINE SUPPOSITORIES

(WYLEYS)

FOR USE IN CONSTIPATION.

AS FIRST INTRODUCED BY OURSELVES.

Glycerine administered in the form of a Suppository acts equally as well as when injected by means of a special syringe, whilst the advantage of the Suppository form is obvious.

We prepare these Suppositories in two sizes, which are supplied in slide boxes, each containing one dozen.

Ordinary (Pessary size) .. 1/6 dozen.
Small, for Children 9d. "

MALTED FOOD FOR INFANTS & INVALIDS.

In addition to sending out the above article in bulk, we are supplying it in Half-pound and One Pound Cardboard Cases, ATTRACTIVE IN APPEARANCE, and labelled without Name and Address.

PRICES.—In Bulk, 42/- per cwt.;
Half-pound Packages, 4/- per doz.;
One Pound Packages, 7/6 (subject to Patent Medicine Discount).

Concentrated Infusions and Decoctions, Granular Effervescent Preparations, Extracts, Spt. Ether. Nit., Spt. Ammon. Arom., Medicated Suppositories, Pessaries, Bougies, and Plaisters, Medico-Pharmaceutical Appliances, and all New Preparations and Medical Specialities.

THE DURAPLASTIC COATED HORSE BALL.

(PATENTED. No. 15215.)

*Extract from "The Veterinary Journal,"
December, 1886.*

Messrs. Wyleys & Co. have introduced a description of horse ball which appears to possess several notable advantages which should commend it to veterinary surgeons. These advantages are related to its shape, coating, and the solubility of this coating. The shape is exactly that of an elongated conical shot, which gives it the fewest possible points of resistance to entering the pharynx and oesophagus, enabling it to pass easily into the stomach, and reducing to a minimum the possibility of accident. The coating is on Fletcher's patent principle, and being absolutely air-tight, the therapeutic properties of the remedies it envelopes remain unimpaired for any length of time; while the ball is kept sufficiently firm to retain its shape, and is yet pliant enough to adapt itself to the fingers during administration. In addition to this, the coating is so soluble that it dissolves in less than two minutes at the normal temperature of the viscera, whereby the prompt action of the medicament is ensured, a point of much importance in urgent cases. The elegance and form of the bolus is in striking contrast to the old-fashioned paper-covered article, with its flat angular ends, and its too hard or too soft consistency.

No. 4.—Alterative Balls ..	24/ per gross
" 5.—Astringent Balls ..	24/ "
" 12.—Condition Balls ..	24/ "
" 6.—Cordial Balls ..	24/ "
" 7.—Cough Balls ..	24/ "
" 16.—Cough Balls ..	27/ "
" 17.—Cough Balls ..	27/ "
" 8.—Diuretic Balls ..	24/ "
" 9.—Fever Balls ..	24/ "
" 1.—Physic Balls ..	24/ "
" 2.—Physic Balls ..	30/ "
" 3.—Physic Balls ..	36/ "
" 18.—Physic Balls ..	42/ "
" 19.—Physic Balls ..	48/ "
" 15.—Stimulating Balls ..	24/ "
" 10.—Tonic Balls ..	24/ "
" 11.—Tonic Balls ..	20/ "
" 13.—Worm Balls ..	30/ "
" 14.—Worm Balls ..	60/ "

PRIVATE FORMULÆ.—WYLEYS & CO. will be glad to prepare Patent Duraplastic Balls from private recipes. Arrangements can also be made to have the name of the Chemist upon each Ball if desired upon orders of 2 gross of assorted Balls.

All Balls are packed in boxes of one dozen.
Samples forwarded free on application.

ANGLO-NORWEGIAN COD-LIVER OIL

SEASON 1888-9.

Samples and quotations on application.

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*Their Export Lists, Spanish and English,
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Technically Pure, in Crystals and Powder, of best
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Chemists and Druggists invited
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Which has just been awarded a GOLD MEDAL at the Brussels Exhibition.

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THE LARGEST MAKERS OF

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GLACIAL ACETIC ACID

99/100 % P. B.

SAMPLES & PRICES ON APPLICATION.

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THE HOP BITTERS COMPANY, LIM.

VERSUS

ALBERT N. BECK, HASTINGS.

BY AN ORDER made on the 13th day of July, 1888, by the Honourable Justice Stirling, in the Lord Chancellor's Court (Chancery Division), High Courts of Justice, the Defendant was perpetually restrained from "Infringing the Plaintiffs' Trade Mark, and from selling or offering for sale any "HOP BITTERS, TONIC BITTERS, or other compound contained in "bottles having affixed thereto any labels similar to or only colourably "differing from the bottles and labels used by the Plaintiffs, or so contrived "or prepared as to represent or lead to the belief that the compound manufactured or sold by the Defendant is of the Plaintiffs' manufacture."

N.B.—Any infringements on our rights or trading on our reputation by vending compounds as substitutes for HOP BITTERS will be summarily dealt with.

We would advise the Trade not to be induced under any pretext to sell or offer for sale compounds in imitation of our HOP BITTERS, but rather to trade only in the genuine article, which is the most honourable, and, in the long run, most profitable. Printed matter will be sent to any Chemist on application, and all inquiries promptly attended to.

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HAS THE LARGEST SALE OF ANY COUGH MEDICINE.

Counter Bills, with Name and Address at Foot, and Show Card forwarded free.

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Sold by Chemists and Medicine Vendors throughout the World. Can be obtained of any of the Medicine Houses.

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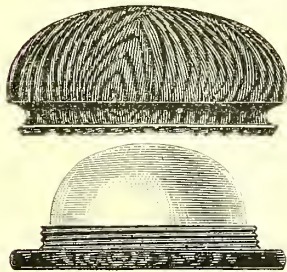
Sole Proprietors, THE LINCOLN & MIDLAND COUNTIES' DRUG COMPANY, LINCOLN.
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HAWLEY'S CASCARA SAGRADA CAPSULES.

The nauseous taste of this drug is effectually covered by enclosing a Concentrated Fluid Extract in Gelatine.

The boxes contain 24 Capsules in each, are neatly got up, and of a convenient size and shape for the pocket.

Price—1/ retail, 7/ dozen; 6 dozen, 6/6 dozen.



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Pure Menthol, no admixture. In dome-shape cases, as accompanying figure, Boxwood, Ebony, and Vegetable Ivory. Also in other shapes. Low prices; see Drug List.

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PERFECT IN PURITY AND UNIFORM IN STRENGTH.

The most efficacious antacid and mild aperient for Delicate Constitutions.
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METHYLENE.

Obtained by the action of Metallic Zinc on Chloroform and Alcohol.
Discovered to be a general Anæsthetic by Dr. RICHARDSON in 1867.

Bottles, 16s.; 8-oz., 8s. 6d.; 4-oz., 4s. 6d.; 2-oz., 2s. 6d.

COMPOUND ANÆSTHETIC ETHER.

For producing Local Anæsthesia.
In 4-oz., 10-oz., and 20-oz. Stopped Bottles, 2s., 4s., and 7s.

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In 2-oz., 4-oz., 8-oz., and 16-oz. Stopped Bottles, 2s., 3s. 6d., 7s., and 12s.

PEROXIDE OF HYDROGEN.

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CHARCOAL CAPSULES

Containing Pure Vegetable Ivory Charcoal.
In Boxes, 2s. 6d. each.

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Are the ONLY MANUFACTURERS of the

SALTS OF MORPHIA

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Manufacturers of all Pharmaceutical Preparations on the best and most improved principles
QUOTATIONS ON APPLICATION.

SOLUT. ÆTHERIS NITROSI (Æther. Hyponit.)

1 part to 5 Sp. Vini Rect. 56 o.p. makes Sp. Æth. Nit. 850.

This concentrated preparation is carefully drawn in our own laboratory, is highly recommended, and is daily finding increased favour with the trade for making Sp. Nitre, as required for use, and thus avoiding the risk of a development of free acid, which is more or less prevalent in Sp. Nitre that has been drawn some time. Price in Winchester Quarts, 3s. per lb., net.

SYR. FERRI PHOSPH. CO.

This preparation is guaranteed to contain the full proportion of Phosphates as originally prescribed by Parrish, and will keep bright and without deposit: Price in Winchester Quarts, 6d. per lb. to account. Special quotations for quantities of 1 cwt. and upwards.

BERTIE-SMITH & CO., Wholesale and Export Druggists,

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For Jequirity seeds, *Abrus precatorius*; Cashew nut, *Anacardium occidentale*; Gurjun balsam, *Dipterocarpus turbinatus*; Indian hemp, *Cannabis Indica*; Myrabolam fruit, fresh, *Embliea officinalis*; Pill-bearing spurge, *Euphorbia pilulifera*; Gohkru, *Pedalium murex* or *Tribulus terrestris*; Chaulmoogra oil, *Gynocardia odorata*; Sandalwood oil, *Santalum album*; Papaine, *Carica papaya*; Thymol, *Ptychotis ajowan*; Bish, *Aconitum ferox*; Atees, *Aconitum heterophyllum*; Dita Bark, *Alstonia scholaris*; White Indian hemp, *Asclepias incarnata*; Bonduc seeds, *Corsalpinia bonducella*; Henna, *Lawsonia alba*; *Hydrocotyle Asiatica* (known to us as Brahmea); *Hymenodictyon Excelsum* (known to us as Kudwa—these words for Mr. Martindale!); Jambul, *Eugenia jambolanum*; Physic nut, *Jatropha curcas*; Kaladana, *Pharbitis nil*; described in "The Extra Pharmacopœia," Martindale & Westcott, 1888.

BERTIE-SMITH & CO, the only Purely Wholesale Export Druggists in India.

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Improved Soda Water and Ginger Beer Powders. Genuine Medicines in Stoppered Bottles.

ESSENCE OF JAMAICA GINGER, CHAMOMILE AND GINGER, AND PEPPERMINT
Celebrated Jamaica Pomatum in Fancy Pots.

SOLE PROPRIETORS OF THE CELEBRATED PRINCE OF WALES' INDIA SAUCE AND CURRY POWDER.

Special quotations to Export Merchants and Shippers. Price List free on application.

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AGENTS WANTED for the under-mentioned specialities, which are well known and command a ready sale in the United Kingdom.

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THE GREAT CORN CURE.



Never known to fail!
A Certain Cure for Corns!
Causes no Pain!

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in Bottles, 1/- each.



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An elegant preparation for
CHAPS & ROUGHNESS OF THE SKIN.
Beautiful hands and complexion.
Ladies should use it.

By the use of this Preparation the Skin is rendered soft, smooth, and white. It prevents all susceptibility to Tan, Freckles, and Redness, restoring healthy action of the pores and skin. Perfectly harmless.

Sold in Bottles 1/- and 2/6 each, by all Chemists and Patent Medicine Vendors.

DR. MUNRO'S ASTHMA CURE gives instant relief in Asthma, Bronchitis, Croup, Whooping-cough, Diphtheria, Ordinary Colds, and all diseases of the Respiratory Organs.

Extract from Testimonials.—"Send me another tin at once. Nothing else gives me relief, and without it my sufferings are intense."

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BUSH LANE, LONDON, E.C.,**

MANUFACTURERS OF ALL DESCRIPTIONS OF PHARMACEUTICAL PREPARATIONS,

Beg to inform Merchants, Shippers, &c., that all Indents entrusted to them will receive careful attention and prompt execution.

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Specimens of these Preparations have remained in the Museum of Kew Gardens during 23 years without deterioration.

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Wholesale and Export Chemists. Manufacturers of Concentrated Fruit Essences and Flavours of every description. Colour Extracts for Confectionery. Citrate of Magnesia, &c. Importers of Finest Super Essence of Lemon and all Essential Oils, &c.

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10 & 11 NORTH CHURCH SIDE, HULL.
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Low Quotations on application. Delivered at London or Liverpool.

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We distil pure oil of Eucalyptus GLOBULUS as a by-product in the manufacture of our Eucalyptus Boiler Fluid, and are, therefore, enabled to place it in quantities at a lower rate than has heretofore been asked for it.

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For TWENTY-FIVE YEARS has maintained its world-wide reputation as
THE ONLY SAFE RELIABLE PHOSPHORIC REMEDY ever discovered for the Permanent Cure of Brain Wreckage, Paralysis, Sleeplessness, Harassing Dreams, Premature Decay of Vital Power, and all Functional and Diseased Conditions of the System dependent upon the Deficiency of the Vital Forces. It
Cures Dyspepsia, Nerve and Heart Disease.
Cures Kidney and Liver Complaints.
Cures all Blood Disorders.
Cures Consumption and General Debility.
Checks all Wasting of the Vital Forces, from whatever cause arising.

THE EFFECT of this Standard Phosphoric Remedy in Nervous Debility and its kindred Evils is Immediate and Permanent, all the Miserable Feelings and Distressing Symptoms disappearing with a rapidity that is REALLY MARVELLOUS.

DR. LALOR'S PHOSPHODYNE

HEALTH, STRENGTH, AND ENERGY.

Is the only Medicine of the kind or name awarded a Certificate of Merit at the Calcutta Exhibition, 1883-4, where all Countries were Exhibitors, and the only Trade Mark—"PHOSPHODYNE"—Registered and Protected under the Trade Marks Act.

THOUSANDS of unimpeachable Testimonials from all parts of the World, and from the highest Medical Authorities, prove conclusively the Verdict Universal that in the World of scientific research no other Phosphoric Preparation has received such exalted praise and distinguished recognition.

Full Printed Directions for the guidance of Patients in the Self-Treatment of the above Diseases are enclosed with each Bottle.

Sold in bottles at 4s. 6d. and 11s. by all Chemists throughout the World.

MANUFACTURED ONLY AT

DR. LALOR'S PHOSPHODYNE
LABORATORY,
HAMPSTEAD, LONDON, N.W.

Savaresse's Capsules.

SAVARS CUBEB CIGARETTES.

SAVARS CUBEB CIGARETTES.

SAVARESSE'S CAPSULES, SANDAL WOOD; COPAIBA.

Cubebs, Stramonium, and Cannabis Ind. (soothing). Relief in Asthma, Throat Cough, Bronchitis, Influenza. A specific against Fogs.

Boxes (12) 1s., 9s. per doz.; (36) 2s., 6d., 24s. per doz.

Full Directions.
EVANS, SONS & CO.,
LIVERPOOL.
EVANS, LESCHER & WEBB,
LONDON.

Savaresse's Capsules of membrane, each containing 15 drops Pure Maranham Copaiba Balsam, or, also of membrane, each containing 16 drops Purest Yellow Sandal Wood Oil. The efficacy of these valuable medicines is due to the absolute purity of the Balsam or Oil, and to the very gradual solvability of the membrane as compared with gelatine.

Copaiba, 2s. 6d., 18s. doz. Sandal, 4s. 6d., 36s. doz.

EVANS, LESCHER & WEBB,
LONDON.
EVANS, SONS & CO.,
LIVERPOOL.

HOMŒOPATHIC MEDICINES

REDUCED PRICES, SUBJECT TO CASH DISCOUNT.

	1s. SIZE.	6d. SIZE.
Pilules	5/-	3/- per dozen.
Tinctures	5/-	3/- "
Camphor Solution or Pilules ...	5/-	3/- "
Arnica External Tr.	7/-	4/- "
Tamus	6/-	4/- "
External Trs. (except above) ...	5/-	3/- "
Liniments	8/-	4/- "

SELECTIONS IN COUNTER SHOW CASES AT £2 12s., £3, £5 10s., £6 18s.

JAMES EPPS & CO.,
HOMŒOPATHIC CHEMISTS
(FIRST ESTABLISHED),
48, THREADNEEDLE ST., LONDON.

DR. CHURCHILL'S

Syrup of Hypophosphite of Soda,
Syrup of Hypophosphite of Lime,
Syrup of Hypophosphite of Iron,
Compound Syrup of Hypophosphites,
Syrup of Hypophosphite of Manganese,
Pills of Hypophosphite of Quinine.

Price, 4 francs per Bottle in France.

Dr. Churchill's Pectoral Tablets,

Price, 2 francs per Box in France.

Dr. CHURCHILL, author of the discovery of the curative properties of the HYPOPHOSPHITES in Chest affections, recommends none but those prepared by

SWANN, PHARMACIEN, PARIS.

Each Bottle bears Dr. Churchill's Signature and Swann's Trade Mark
SWANN, 12 RUE CASTIGLIONE, PARIS.

ADVANCE WITH THE TIMES!

Every Chemist should put up SYR. HYPOPHOSPH. CO., and push it as the most modern form of "Chemical Food" and "Quinine Tonic."

YEATMAN'S

SYR. HYPOPHOSPH. COMP.

Is the STRONGEST and MOST ELEGANT Syrup yet offered.

ONLY CHEMISTS ARE SUPPLIED.

It contains in each fluid drachm—

Hypophosphite of Lime	1 gr.
" " Soda	2 grs.
" " Potassa	1 gr.
" " Iron (Protoxide).....	1 gr.
" " Manganese.....	1 gr.
" " Quinine	1 gr.
" " Strychnine	1/100 gr.

SLIGHTLY ALKALINE.

The composition may be varied to suit buyers. Diluted with an equal bulk of Syrup it possesses the average strength of the advertised Syrups. As HYPOPHOSPHITE, and NOT Pyrophosphate of Iron, is used in this preparation, no inelegant precipitate occurs,

PRICES ON APPLICATION.

F. J. YEATMAN, M.P.S.
141 KENTISH TOWN ROAD, LONDON, N.W.

 CHEMISTS & DRUGGISTS'
BOTTLES AND GLASSWARE

NOVEL AND ATTRACTIVE PATTERNS FOR

All CLASSES of BOTTLERS

(With or Without Name, Trade Mark, &c.),

POISON BOTTLES,

Screw-capped Bottles and Jars,

"INTERNATIONAL" FEEDING BOTTLES

(SOLE MAKERS),

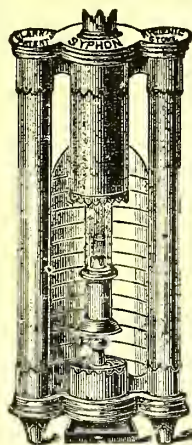
HONEY JARS, POTS, BOTTLES, &c. New Special Trade Price List, Illustrated, Now Ready. 

Liqueur, Cordial, and Syrup Bottles.

DISPENSING BOTTLES **AT WORKS PRICES.** SEND FOR TRADE PRICE LIST.**BREFFITS'**

(LIMITED),

AIRE & CALDER BOTTLE CO.**53 UPPER THAMES ST., LONDON.****EVERY CLASS AND DESCRIPTION BOTTLES, GLASSWARE, &c.,
AT MANUFACTURERS' TRADE PRICES.**



TO CHEMISTS AND DRUGGISTS.

AGENTS WANTED FOR THE SALE OF CLARK'S PATENT

"SYPHON"

(REGISTERED TITLE)

HYGIENIC CONDENSING GAS HEATING STOVES.

NO FIRE REQUIRED. ARE FREE FROM SMELL OR SMOKE.

All injurious vapours are reduced to harmless liquid inside the Stove, and passed out at foot into a tray provided for that purpose.

FOR USE IN HOSPITALS, SICK CHAMBERS, BEDROOMS, HALLS, CONSERVATORIES, CHURCHES, SCHOOLS, ETC.

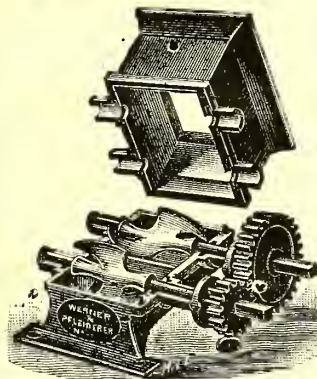
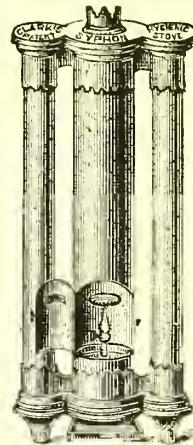
Specially suitable for patients suffering from Bronchial affections, as a moist atmosphere is obtainable when required.

FOR TERMS, PARTICULARS, AND PRICES, APPLY TO

S. CLARK & CO., Patentees & Makers, Syphon Works, Park St., Islington, LONDON, N.

Telegraphic Address:—"SYPHON STOVES LONDON."

Wholesale Agents:—Messrs. MAW, SON & THOMPSON, Alder-gate Street, London, E.C.



Size 3, Type I, for 1-lb. Mass.

THE "UNIVERSAL" KNEADING AND MIXING MACHINE FOR PILL MASS MAKING,

ALSO FOR

Horse Balls, Tooth Pastes, Ointments, Soaps, Powders, and for general Mixing and Incorporating.

REPLACES WITH ADVANTAGE ALL OTHER APPLIANCES FOR THESE PURPOSES.

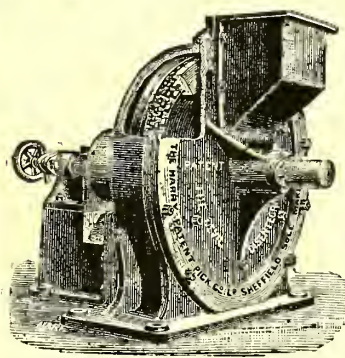
Made in various sizes, to do from $\frac{1}{2}$ lb. up to 1 ton at a time.

WERNER & PFLEIDERER, 86 Upper Ground St., LONDON, S.E.

HAVE YOU SEEN THE "DEVIL" DISINTEGRATOR AND MIXER?

This Machine will Grind to Powder, Granulate, or Shred any Material, Animal, Vegetable, or Mineral.

CLOGGING ABSOLUTELY IMPOSSIBLE.



No.	PRICE	Belt required	Diameter of Pulley	Revolutions per Minute
1	£30	3 inches	8 inches	1,000
2	£60	5 "	12 "	900
3	£90	7 "	14 "	800

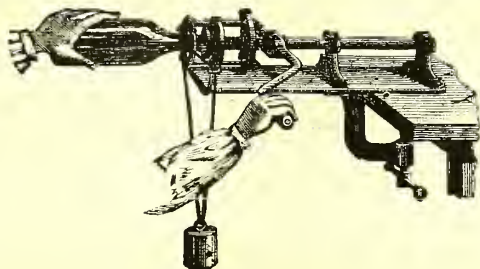
The chief feature of this Grinding Machine is that it combines the centrifugal with the grinding action, and it can be adjusted to grind to any degree of uniform fineness while in motion. No Screens or Grates are required. Will Grind Wet or Dry Material, Clogging being impossible.

Samples of material forwarded to us may be passed through the Machine in the presence of intending purchasers or forwarded by rail. Larger sizes made to order.

Sole Makers, THE HARDY PATENT PICK CO., Ltd.,
Engineers and Mining Tool Makers, SHEFFIELD.

NEW CAPSULING MACHINE

The only Machine which leaves no crease or pleat on the Capsule.



Can be fixed to any Counter.
A single pull of the lever is sufficient to fix the Capsule.

Patentee—**C. MELIN,** 37 Crutched Friars, LONDON, E.O.

THE SELF-OPENING TIN BOX COMPANY

(GRIFFIN'S PATENT).

ALBION TIN WORKS, YORK ROAD, KING'S CROSS, LONDON, N.

Telegraph Address—"TIN BOX LONDON."



Boxes ready made up, or the Patent Tops only (ready for making up), are supplied.

THE NEW TIN BOXES for all kinds of Hermetically Sealed Preserved Foods, DRUGS and CHEMICALS.

THE NEW TIN BOXES are as cheap as the ordinary Boxes, require no soldering up, and can be opened with a penny piece.

THE NEW TIN BOXES are being adopted by the largest Food-preserving Houses and CHEMISTS, to whom references can be given.

THE NEW TIN BOXES are also perfect for Tea and Coffee Canisters, Biscuit Boxes, Confectionery, Paints, Oils, Varnishes, Soaps, &c.

THE NEW TIN BOXES are described by the *Times*, *Standard*, *Chronicle*, *Illustrated News*, *Engineer*, *Grocer*, *Oil and Colourman*, and Press generally, as the "neatest and most elegant invention ever made."

CAUTION.

IN THE HIGH COURT OF JUSTICE, CHANCERY DIVISION.

GRIFFIN v. NOAKES. 1887. G. No. 1,088.

GRIFFIN v. FRAVER. 1887. G. No. 1087.

As we understand from some of our Clients that, from false representations made, an impression prevails that the proceedings in these actions have failed, we beg to inform the public that such is not the fact, and that the proceedings are being carried on as fast as possible, in the Chancery Division of the Court, to restrain the Defendants from selling or making Tins similar to those manufactured by us, and from infringing our Patents. The Defendants, pending the proceedings, have been ordered by the Court to keep an account of all sales made by them. Our Solicitors, Messrs. CLARKSON, GREENWELL & Co., have had instructions from us to proceed against all persons so offending.

FOR THE SELF-OPENING TIN BOX COMPANY, G. FEATHERSTONE GRIFFIN, Manager.

"YOUR WEIGHT FREE."

USEFUL AND ORNAMENTAL.

No Chemist's Shop should be without one of these Machines. Will draw Customers when every other means have failed. Buy one of these Machines and your Shop will be the talk of the town.

MACHINE ALWAYS IN ACTION. NO ATTENDANT REQUIRED. CUSTOMERS WEIGH THEMSELVES.

USEFUL FOR GOODS; WILL WEIGH [FROM 1 LB. TO 20 STONE.

NET CASH PRICE ON RAIL, £6.



TESTIMONIALS.

The Central Drug Stores, Corporation Street, Birmingham, July 25, 1888.

Mr. TIPPETTS—DEAR SIR,—I find your Weighing Machine is freely made use of by my customers, especially the ladies. Patients bringing a physician's prescription for the first time frequently weigh themselves, and afterwards, as better in health, note their difference in weight. The heaviest lady to date has been 18 stone 2 lbs.; gentlemen, 19 stone 5 lbs.

Yours truly,

(Signed),

MARTIN MAGER.

159 Stratford Road, Birmingham, August 2, 1888.

Mr. TIPPETTS—DEAR SIR,—The "Your Weight Free" Machine, which you sent me a few weeks ago, is a very attractive advertisement; it has caused a large amount of comment in this neighbourhood, as shown by the number who weigh themselves each day, and by the remarks which have appeared in the local papers.

Yours faithfully,

(Signed),

CHAS. THOMPSON.

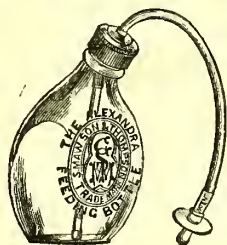
ATTRACTING CUSTOMERS.—In a suburban Chemist's shop there is to be seen a novel pair of Weighing Scales, with a large dial like a clock-face, upon which is written "Your Weight Free." It appears to be well patronised by customers.—From *The Chemist and Druggist*, June 23, 1888.

SELF-WEIGHING MACHINES are being patronised by several Chemists in this town, with a view of providing a source of amusement to customers while they wait.—*The British and Colonial Druggist*, July 7, 1888.

ANOTHER REVOLUTION IN AUTOMATIC MACHINES.—A Birmingham tradesman throws out a bait to his customers in the shape of a machine on which they can have their weights taken for nothing.—*The Birmingham Daily Mail*, July 21, 1888.

F. D. TIPPETTS, ADVERTISING CONTRACTOR, STRATFORD ROAD, BIRMINGHAM.

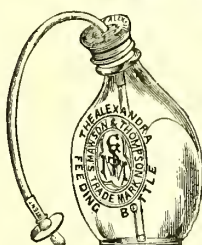
S. MAW, SON & THOMPSON'S FEEDING BOTTLES.



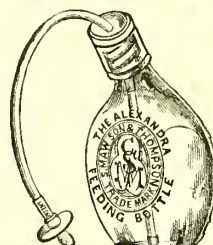
Alexandra Feeding Bottle,
Screw Metal or Earthenware Cap.
11/ per doz.



Alexandra Feeding Bottle,
Gilt Porcelain Cap.
20/ per doz.



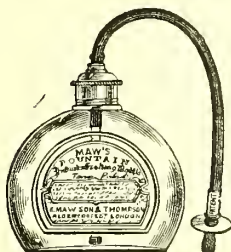
Alexandra Feeding Bottle,
Earthenware Cap.
11/ per doz.



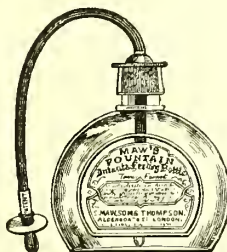
Alexandra Feeding Bottle,
Screw Glass or Earthenware,
Stopper, 11/ per doz.



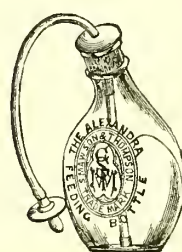
Alexandra Feeding Bottle,
Earthenware Cap.
8/ per doz.



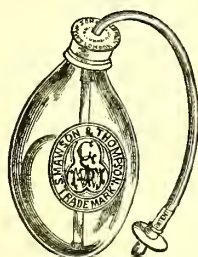
Fountain Feeding Bottle,
Screw Glass Stoppers.
20/ per doz.



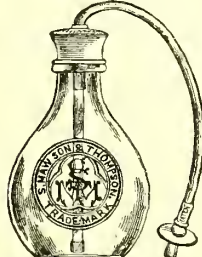
Fountain Feeding Bottle,
Screw Glass Stoppers.
12/6 per doz.



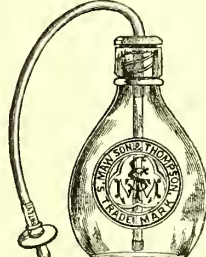
Alexandra Feeding Bottle,
Wood-Top Cork.
3/ and 3/8 per doz.



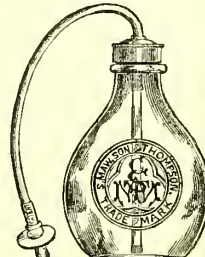
Oval Feeding Bottle,
Earthenware Cap.
8/ per doz.



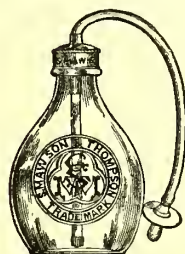
Export Feeding Bottle,
Earthenware Cap.
7/3 per doz.



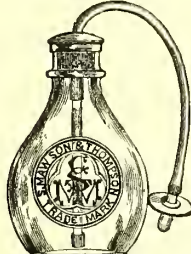
Export Feeding Bottle,
Screw Glass Stopper.
7/6 per doz.



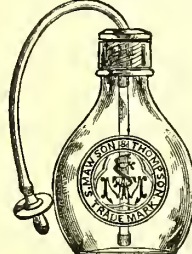
Export Feeding Bottle,
Screw Metal or Earthenware Cap.
9/ per doz.



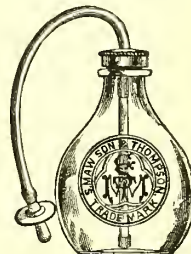
Export Feeding Bottle,
Metal Cap.
4/6 per doz.



Export Feeding Bottle,
Wool-Top Cork.
1/9 and 3/6 per doz.



Export Feeding Bottle,
Screw Glass Stopper.
4/ per doz.



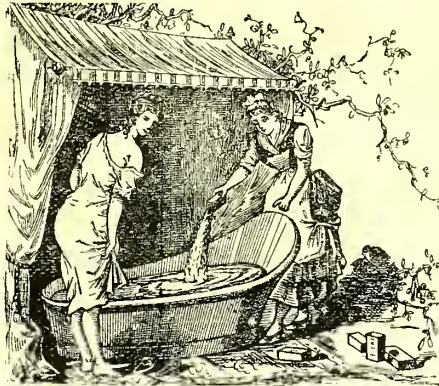
Export Feeding Bottle,
Screw Metal Cap.
4/6 per doz.

FOR FURTHER PARTICULARS SEE QUARTERLY PRICE CURRENT, PAGES 46 AND 47.

[2] SPECIAL QUOTATIONS TO WHOLESALE BUYERS.

S. MAW, SON & THOMPSON, LONDON

ORIENTAL AROMATIC SALTS, FOR BATH AND TOILET PURPOSES.



The **ORIENTAL AROMATIC SALTS**, when dissolved, render the water very soft, and impart a most agreeable and refreshing perfume that can be diffused with advantage in a room where the air is close and depressing.

The **ORIENTAL AROMATIC SALTS** strengthen the tissues, perfume and invigorate the body, preserving it from contagious diseases, and cleanse the pores, thus facilitating the cutaneous transpiration so necessary to life.

The **ORIENTAL AROMATIC SALTS** are unrivalled for beautifying and preserving the Skin, rendering it soft and velvet-like; and for keeping the complexion perfectly bright and clear.

They are indispensable in the Bath as well as in the Bedroom, and should be used by everybody.

Sold in Bottles at 1/6. Wholesale of the Patentes and Manufacturers—

S. TRAVADO & CO., 27 Jewry St., E.C., LONDON.

To be had also of Messrs. BREIDENBACH & CO., Perfumers to the Queen,
157b NEW BOND STREET, W.

PURE OTTO OF ROSE, SPECIALITY OF SHIPKOFF & CO. DISTILLERS AND EXPORTERS, KIZANLIK, BULGARIA.

Agent for Great Britain—G. P. BAKER, 19 Ivy Lane,
LONDON, E.C.

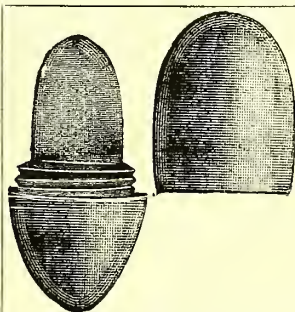
THE OTTO OF ROSE which this house distils and exports is known above all by the absolute purity of its quality and the unexcelled sweetness and strength of its odour. It is guaranteed to be the finest essence produced in the famous Rose Valley of Bulgaria.

THE CHEAPEST 6d. MENTHOL CONE.

Manufactured
of
Finest Japan
Menthol.
Guaranteed
perfectly pure

TRADE,
3/- per doz.

3 dozen
Carriage paid



No. 12.—Boxwood.

Other Cones
to Retail
2d., 3d., & 4d.
each, equally
cheap.

Write for
Price List

SAMPLE
POST FREE
on receipt of
business card.

CASTLE MENTHOL CO., 11 Fumival St., Holborn, LONDON.

PRICE'S SANITARY SOAPS.

GLYCERINE & CARBOLIC ACID.

GLYCERINE & COAL TAR.

GLYCERINE & EUCALYPTOL.

GLYCERINE & SALICYLIC ACID.

GLYCERINE & THYMOL.

PRICE'S PATENT CANDLE
COMPANY, LIMITED,
LONDON & LIVERPOOL.

"KAMPHORKALK"

A fresh Disinfecting Powder. It is a combination of soluble Chlorides and Camphor.

THE ADVANTAGES CLAIMED FOR IT ARE—

It is free from Poison. It is free from Smell (except a slight odour of Camphor). It is Soluble in Water
It is White in Colour. It is not injurious to any fabrics. It is Effectual and Cheap.

EXTRACTS FROM REPORTS.

Professor WANKLYN says:—"It is a most powerful disinfectant."

Professor REDWOOD says:—"I have made several experiments for the purpose of testing the efficacy of 'Kamphorkalk' (Cooper's Camphorated Disinfectant), and am satisfied that it possesses the properties claimed for it, and that it may with advantage be used in cases where infective disease prevails; and for arresting the decay of animal or vegetable matter from which noxious effluvia may emanate."

Sold retail in pretty decorated Canisters, 2 lbs., 1/; 6 lbs., 2/ each. In 28-lb. Kegs and 1-cwt. Casks much cheaper in proportion.

Special Wholesale Agents—Messrs. Sanger & Sons, 489 Oxford Street, London.

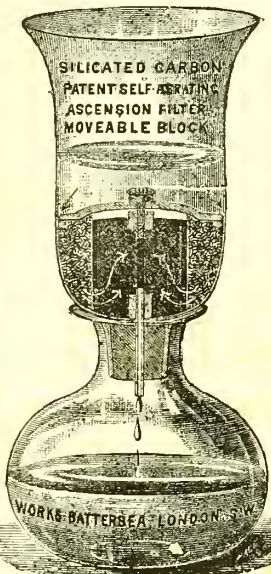
Proprietor and Manufacturer—**ALFRED HORNBY, RICHMOND, SURREY.**

FLATNESS OF TASTE

SO COMMON IN FILTERED WATER,

OBVIATED BY USING SILICATED CARBON FILTERS AERATED

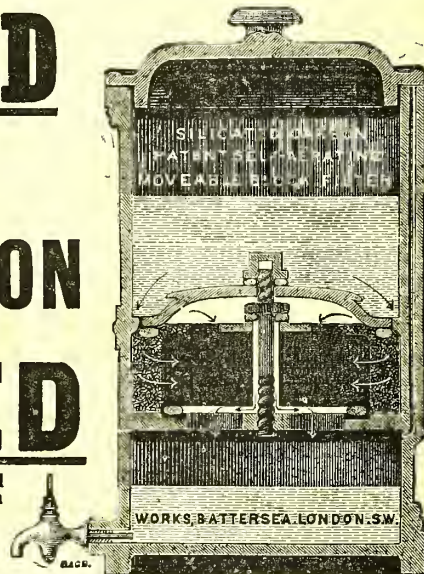
LIBERAL DISCOUNT TO THE TRADE.



Glass Table Filters.

By means of which the water is Aerated and Filtered simultaneously, rendering it, even after boiling, Pure, Bright, and Palatable.

The Silicated Carbon Block can be Instantly Removed, leaving the whole of the Filter Open for Inspection and Cleansing.



Large Filters.

LIBERAL DISCOUNT TO THE TRADE.

FOR PRICES AND FULL PARTICULARS, WRITE TO THE
SILICATED CARBON FILTER CO., BATTERSEA, LONDON, S.W.

146 MINORIES, LONDON, E.C. 4. New York, Sydney, &c.

SODA WATER MACHINERY
AND ALL ACCESSORIES FOR THE TRADE

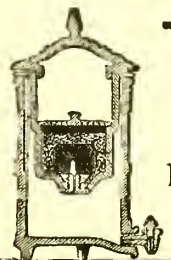
BRATBY & HINCHLIFFE
HEAD OFFICE
SANDFORD STREET, ANCOATS, MANCHESTER.

BOXES, BOTTLES, MACHINERY, ESSENCES
Catalogues, Circulars, Testimonials
Post Free

DOULTON & CO., LAMBETH, LONDON, S.E.

MANUFACTURERS OF EVERY DESCRIPTION OF

WATER FILTERS.



NEW PATENT
Manganous Carbon FILTERS.
Boudoir and Table FILTERS.
Pocket and Syphon FILTERS.

House Supply or Cistern FILTERS.
Patent Granular Charcoal FILTERS.
Refrigerator FILTERS.

MAIN SERVICE FILTERS

FOR INTERMITTENT OR CONSTANT SUPPLY.

See Reports, Analyses, &c. Detailed Lists on application.

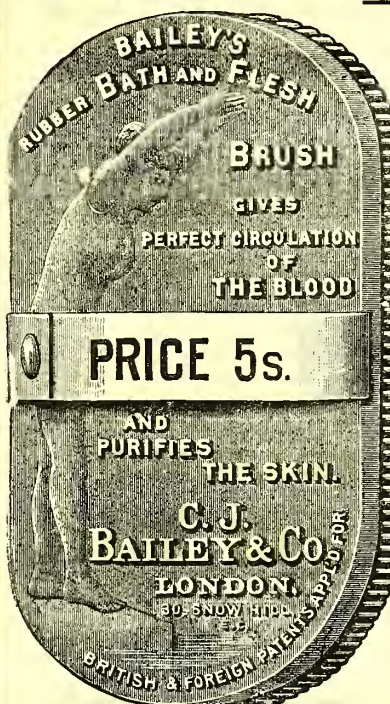
To be obtained of all Dealers.



DOULTON & CO., LAMBETH, LONDON, S.E.

DEPOTS:—100 Soho Street, LIVERPOOL; Granville Wharf, BIRMINGHAM; and 6 Rue de Paradis, PARIS.

BAILEY'S RUBBER FLESH BRUSH.



We have received for trial and notice from Messrs. Bailey & Co., 30 Snow Hill, London, E.C., specimens of their bath and flesh brushes. These are entirely formed of vulcanised india-rubber. The back is about one third of an inch in thickness, and is sufficiently flexible to adapt itself to the curved surfaces of the body and limbs. In the place of the bristles of the ordinary brush is a series of small india-rubber rods, nearly two thousand in number. These have a very efficacious action in removing dirt from the hands, and in rubbing away the dead cuticle from the surface of the skin of the body. The action of the brush used with soap and water more nearly resembles shampooing than ordinary rubbing. It is admirably adapted for use after exercise, being more detergent than a sponge or towel, and producing a very pleasant effect after fatigues. For athletes, it is certainly one of the best flesh brushes we have seen, as it leaves the skin in a condition most favourable to its healthy action.—*Field*, April 14, 1888.

BAILEY'S RUBBER BATH BRUSH.

Valuable as the use of the flesh brush is when employed in the bath in removing the outer or dead portions of the cuticle, and so promoting the healthy action of the skin, its use is not unfrequently objected to, on account of the redness it produces, owing to the bristles irritating the skin. Messrs. Bailey & Co. have forwarded to us a bath brush formed, so to speak, of bristles or slender rods of india-rubber, many hundreds in number. These are set in a flexible back, which adapts itself to the curves of the body. When used in the bath with any ordinary soap its action in rubbing away the effete portions of the skin, and leaving a beautifully smooth surface, is most satisfactory, and it produces a sensation of comfort that must be left to be fully appreciated. The most skilled shampooer could not obtain a more marked effect. The gentle rubbing friction of the brush not only promotes the circulation of the blood but by causing a due action of the skin, relieves the congestion of the muscles or internal organs, and produces a feeling of relief after fatigue that is most satisfactory. We can recommend this new bath brush very strongly. Smaller brushes are also made as toilet brushes, which are most efficacious in cleaning and whitening the hands. These brushes may be obtained of any druggist or dealer in toilet articles, the wholesale depot being 30 Snow Hill, E.C.—*Queen*, April 14, 1888.

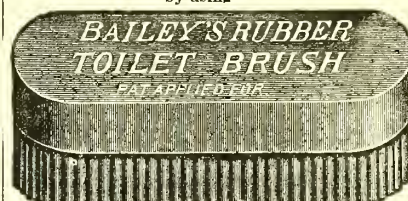
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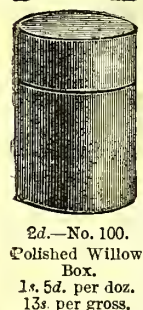
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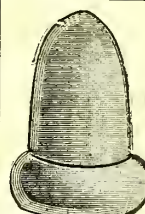
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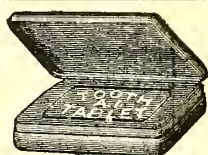
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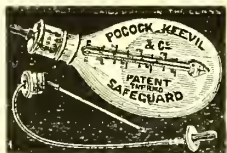
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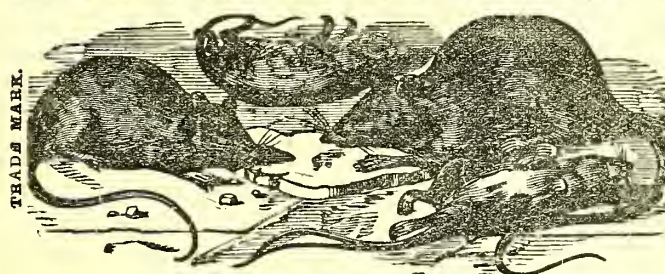
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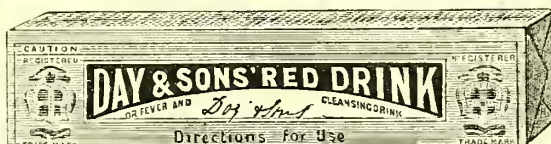
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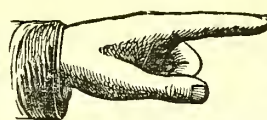
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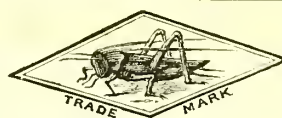
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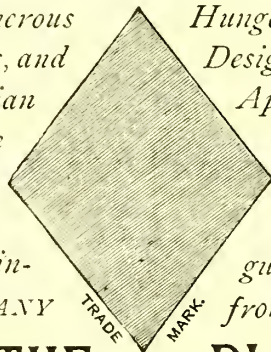
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"Bournemouth.

"We cannot, we think, do better than tell you that of the Syphon

"supplied us by you, and used by us during three successive seasons, we have no

"had one out of order—if we except two with broken tubes; and only one burst,

"and that on first time of filling. The Plating is, we consider, of special excellence

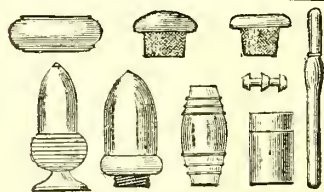
"and wears well. We shall not need to look farther whilst you continue to supply us with what

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4-dozen and 6-dozen Cases Carriage Paid.

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LATE 32 MAIN STREET.

REPORT

ON

COLEMAN'S LIEBIG'S EXTRACT

OF

MEAT AND MALT WINE,

By FRANCIS SUTTON, Esq., F.C.S.

Public Analyst for the County of Norfolk, &c.

FRANCIS SUTTON, ESQ., F.C.S.,
Analytical and Consulting Chemist,
Author of Handbook of Volumetric Ana-
lysis, Chemist to the Norfolk Chamber of
Agriculture,
Gas Examiner for the City of Norwich.

NORFOLK COUNTY ANALYST'S
OFFICE,
LONDON STREET, NORWICH,
July 25th, 1888.

I hereby certify that I have made an exhaustive analysis of the Meat and Malt Wine prepared by Messrs. Coleman & Co., Limited, Norwich, with a view to determine chiefly whether it really contains an appreciable quantity of Meat Extract, and whether it is entitled to be classed as a suitable dietetic stimulant for invalids. The result of my analysis proves that it does contain a suitable proportion of all the most valuable principles contained in Liebig's Extract of Meat. It is well known to physiologists that this extract is not valued for the ordinary albumenoids (such as gelatine and albumen), which are, indeed, excluded to a large extent by the process of manufacture, but that its chief value, as shown by Baron Liebig himself, consists in its containing those essential principles peculiar to flesh, and which have a remarkable restorative power over the nervous system of invalids, thus rendering Liebig's Extract famous. In addition to these valuable substances the wine also contains a considerable quantity of Malt Extract, which is also well known and appreciated as an excellent restorative in cases of debility.

In addition to this the wine is of pure, natural quality, free from sophistication.

As witness my hand,
(Signed) FRANCIS SUTTON,
Public Analyst for the County of Norfolk, &c.

TRADE PRICES ON APPLICATION TO

COLEMAN & CO., LIM., NORWICH & LONDON.

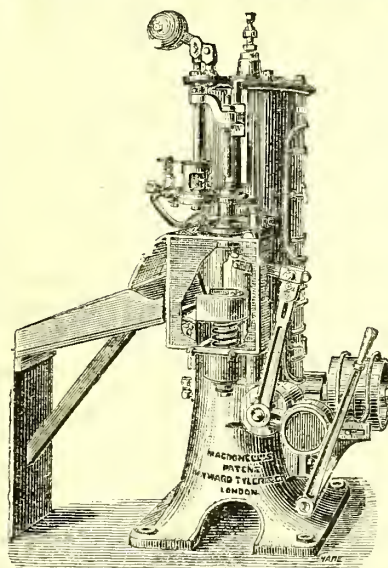
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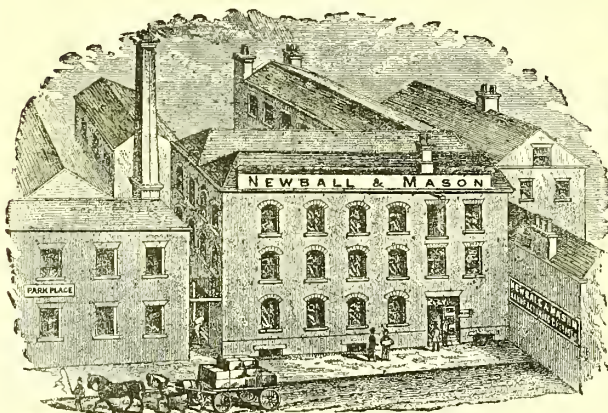


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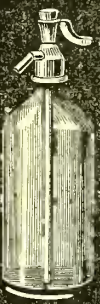
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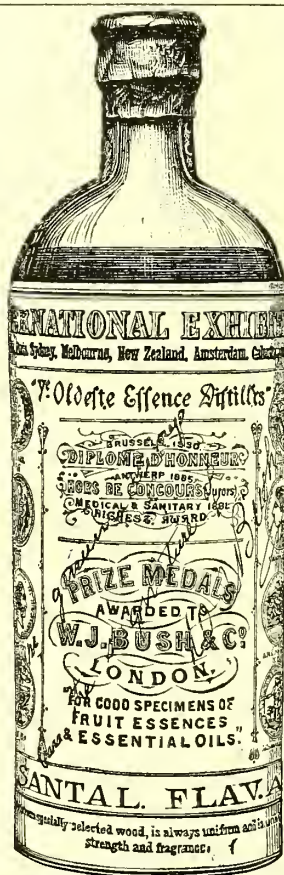
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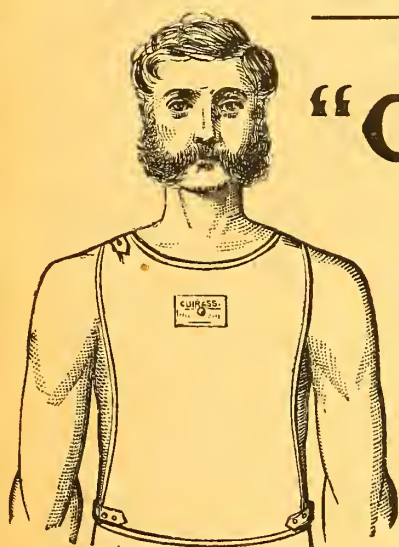
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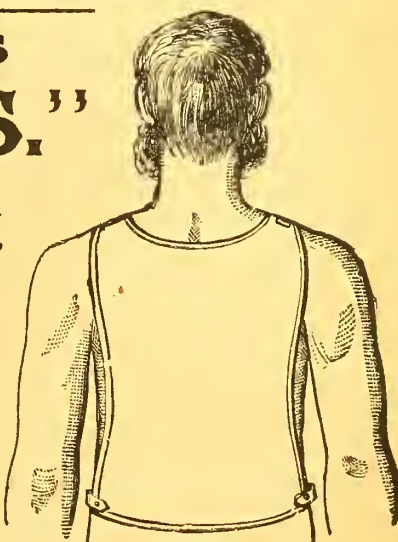


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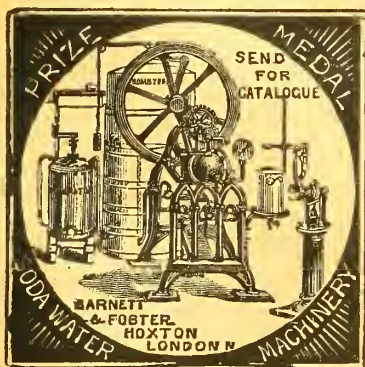
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SATURDAY, NOVEMBER 10, 1888.

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AS ASSISTANT; outdoors; aged 34; accustomed to General trade; salary moderate. L., 30 Manchester Street, King's Cross, W.C.

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AS ASSISTANT or Branch Manager; aged 28; height 5 ft. 10 in.; experienced; references good. "Loco," 132 Drummond Street, N.W.

ASSISTANT; aged 25; can take entire charge; good London experience; in or outdoors; disengaged. Ward, Knight, Chemist, Wandsworth.

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ASSISTANT or Manage Branch; temporary or permanent; aged 25; General trade. A. Short, 2 Dunn Street, Up. Brook Street, Manchester.

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